THE

MERCHANTS' MAGAZINE

AND

COMMERCIAL REVIEW.

NOVEMBER, 1862.

OUR CITIES IN 1862 AND 1962.

CHICAGO AND TOLEDO.

BY J. W. S.

THE cities of this country have become what they are, chiefly, within the last fifty years and, almost entirely, within the past century. The sum total of the population of all of them, in 1762, was less than Chicago now possesses. With pride and exultation we look back on the growth of our cities, through the last century; with lively hope we anticipate a more glorious expansion during the century before us. In 1762, how imperfect were the instrumentalities of commerce, manufactures, and agriculture compared with those now in use. Will ours be so rude in the eyes of our successors of 1962? It is difficult to imagine so great an advance; and yet reason tells us it will be almost immeasurably greater. Who, in 1762, would have believed that the twenty thousand inhabitants of New York would grow to upwards of a million in 1862? Who, in 1762, would have been thought sane had he predicted the existence, in 1862, of a city on lake Michigan of over one hundred thousand inhabitants? Far more apparently incredible changes, in city growth, will be witnessed during the hundred years to come. China, with her inferior race of men and her greatly inferior instruments of production, has built up cities over her rich plains and valleys that embrace numbers nearly, if not quite, equal to all the other cities of the world. Our territory is scarcely less productive of the elements for the support of a great population than that of China. The natural productive powers of our continent of North America center about our great western lakes, and thither is flowing the migrating current of people more strongly than to any other part of the world. On the borders of these inland seas, therefore, we may expect a great concentration, in cities. The western extremities of lakes Erie, Michigan, and Superior are, evidently, the commanding commercial positions for the concentration of the commerce of the chain

of lakes from all quarters of the world. To these points, as they offer the best water way to the Atlantic and the best centers of distribution around the lake borders, will be directed the commerce of the North Pacific Ocean, in its passage across the continent. The productions of Eastern Asia and the North Pacific Islands, transported by the Pacific railway to the navigable waters of the Missouri, may reach these lake ports on steam propelled boats or steam drawn cars, and, there, meet and be exchanged for products brought from the shores of the Atlantic, in large steamers and by railroad. At present, and until a much larger capital is accumulated in the lake cities, this commerce of ocean with ocean will be carried on, chiefly, at New York. By the time the Pacific railroad is completed, there will be a great change in the ability of the lake cities to participate in the new commeree which it will create.

If the ocean commerce were alone considered, New York would be their best emporium. Foreign commerce is of great importance, but our domestic commerce is, almost immeasurably, more important. This can be carried on to better advantage in central positions of the continent than on its borders. The more central the position to the home productions to be interchanged, other advantages being equal, the better the location for domestic commerce. The center of population of the United States, and also of the U. S. embracing the Canadas, is in south-eastern Ohio. It is moving every year, in a line considerably north-of-west, about four miles, in the direction of the west end of lake Erie. The center of the productive capabilites of the continent, when well improved, will be as far in the interior as Chicago; probably many miles north-westward of that city. But as our commerce with the Atlantic borders, on both sides of the ocean, will, for a long time to come—probably for all time to come—be greater than with the countries on the Pacific, the center of industrial power will always be eastward of the center of population of our country. It will be quite within the limits of truth to assert that the home commerce of the continent is ten times greater than its commerce with all the world besides. The best position for the concentration of this home commerce, other things being equal, will, then, be worth ten times as much as the best position for external commerce. For the concentration of interior or home commerce, the best location will be the city nearest the center of industrial power, provided it has adequate channels for transport and other facilities for the healthful support of a large commerce and a large population. Such are the positions of Toledo and Chicago. Is it reasonable to anticipate for these young cities a very high destiny? Will it seem absurd to expect one or both to come up to the stature of great capitals, such as New York, London, and Paris, by the year 1962? We submit some facts which look in that direction. The tendency of the commerce of the great North American plain to center in the lake cities has been manifest from their commencement, and especially during the last fifteen years. The increase of population from 1850 to 1860 was—

In Chicago	265	per cent.
In Toledo	260	"
In our 10 largest lake cities	133	"
" " river cities	65	"
" " exterior tide-water cities	53	"

Twenty years ago it was generally believed that our largest interior cities would grow up on the great interior rivers. Experience has since demonstrated that our interior commerce prefers to concentrate on the borders of our great lakes. It can no longer be doubted, by well informed persons, that these lakes will draw to their waters and concentrate in their cities a greater commerce than will the great interior rivers. The superior growth of the commerce and population of the chief cities of the lakes, from 1850 to 1860, proves this to have become the rule of the past. The increase of population of the ten largest lake cities, as the foregoing table shows, was more than twice as rapid as that of the ten largest river cities. The proportionate increase of their commerce was much greater. Of the ten largest lake cities, Chicago and Toledo exhibit much the most rapid growth in commerce and population—the former having gained 265 per cent and the latter 260 per cent. These cities having the most commanding positions are to be the future rivals for leadership. Each has great and peculiar claims to become, one day, the great city of the lakes. It will, probably, be long before it is settled which has the best position for concentrating a great commerce. Toledo has, at present, not more than one-seventh the number of inhabitants in Chicago. This places her at great disadvantage in the start. Can it be overcome? Philadelphia was, once, much more populous and wealthy than New York. Business and wealth change the field of their operations, in our day, more readily than many years ago. People change their places of residence with much more ease and less reluctance than formerly. The whole human race is becoming mobile. We may, therefore, put less stress on the advantage of greater size. The best *natural* position for becoming the great city of the lakes, within the next hundred years, is believed to belong to Toledo. Artificial channels of trade, already in use, are not wanting, and it is but reasonable to expect they will be multiplied to meet the exigencies of its growing commerce. Has Toledo the better natural position? Let us, with candor, enumerate the peculiar advantages of each. Toledo is nearer to the British provinces north and northeast of the lakes and much more convenient for the exchange of the exportable products of these provinces, transported by water or by land, for the exportable products of the interior States west and southwest of Toledo and Chicago. These provinces now contain some three millions and-a-half of people, and increase nearly as fast as the Northwestern States. Their numbers increasing at the same rate as that of all the States of our Union, since 1790, would become upwards of seventy millions in one hundred years. Whether incorporated with us or constituted an independent nation, these provinces will form an important part of our commercial world. The natural resources of this extensive region are very great and will be developed into immense wealth by the intelligent and active race who are filling it with people.

Proximity, facility of access in time and cost, other things being equal, will determine the preference of one commercial position over another. The British provinces of the North constitute but a small portion of the commercial world that is nearer to Toledo than to Chicago, and, so should prefer it, as a place of resort, for the interchange of its commodities. By drawing, on the map, a line of equal distance between the two cities it will be seen that, eastward of that line, there exists, and for a long time there must continue to exist, a great preponderance of population and

wealth over the region westward of that line. This dividing line will give Toledo the lower portions of lakes Superior and Michigan, and, in its course southward, will pass through South Bend and Indianapolis, west of Louisville, and meet the gulf near Pensacola. If the commerce of North America be alone considered, there is scarcely room for doubt that Toledo is the more favorable point for its present concentration. There is not only much more population east of the line, but it possesses, in proportion to numbers, much greater wealth-producing power. How will the balance stand when half the century, allowed for the race between these cities, shall have passed? The United States and British provinces will then contain over one hundred millions of people. Will the center of their commercial power then be nearer Chicago than Toledo? Clearly not. The probability is that the greater portion of the hundred millions will live east of the line of equal distance; and there cannot be a doubt that the preponderance of wealth and resources, in proportion to numbers, will be on the Toledo side. The available channels of commerce of both cities are now ample for the present condition of the country; and it may be safely assumed that they will be improved and increased as rapidly on the Toledo as on the Chicago side of the line. Will the center of commercial power of the continent, before the end of a century, be west of the line of equal distance between Chicago and Toledo? It is probable that the center of population will reach that line, and quite possible that it may, in its westward movement, reach and pass Chicago. But, the center of population and the center of commercial power are quite distinct and, often, distant from each other. Our calculations, intended to show the future center of the *commercial power* of our continent, must embrace the whole commercial world. We must also estimate, approximately, as well as we can, the relative commercial value of the different populations in North America and beyond it. This value will depend, chiefly, on *proximity*, *industry*, *capital*, and *enterprise*. *Proximity*, near neighborhood, has much to do with the number and amount of commercial transactions of every community. Persons of different occupations, in a city, within a few doors of each other, on the same block, on the same side of the street, on the same street, in the same quarter of the city make more exchanges, buy and sell more with each other, other things being equal, than with people more remote or more difficult of access. Whatever can be procured in the city of one's residence will be bought there rather than in the next city; and the city near at hand will be called on to supply what the city of our residence cannot so well furnish, in preference to a city more distant. It is probable that the people of the city of New York, with its immediate dependencies, numbering a million and-a-quarter, carry on more commerce with each other and with the rest of the world, in number of transactions and in amount of values, than any five millions in the valley of the Mississippi. The advantages of easy co-operation in industrial pursuits, which proximity confers, constitute an essential element in the growth of cities which prosper by virtue of natural advantages. Toledo therefore, being nearer the chief centers of industrial power of North America and the world, may be expected to have more commercial transactions, other advantages being equal, than Chicago.

The numerical preponderance of the country nearer Toledo does not fully represent its comparative industrial ability. The industry of the

Northern Atlantic and the Eastern Lake States is much more developed and varied, and, in consequence, more productive of articles which sustain commerce than is the industry of the country nearer Chicago.

Accumulated capital is an important element in any calculation for fixing the center of commercial power. At present, most of the available capital of the world is on the Toledo side of the line. Northwestern Europe and the eastern portion of our Republic are the chief points of accumulation from which it flows along the large channels of trade towards the most promising seats of western commerce. Much of the surplus capital on the other side of the Atlantic, beyond what is wanted for home use, is, with more or less constancy, brought to the United States and provinces north of us for investment. In its westward course, after supplying the cities east of the lakes, it flows over, in smaller streams, into our lake and river cities. The western cities first reached, other things being equal, will have the preference for its lodgement. It has had an important agency in the building up of Buffalo, Erie, Cleveland, Detroit, Toledo, Chicago, Milwaukee, Cincinnati, St. Louis, and other lake and river cities. Much of this capital has come in the pockets of immigrants, who have also added to the growth of these cities by their labor and skill even more than by their money. The accretions to the lake cities from this source naturally fall, in largest measure, into those nearest the source of supply. New York being the principal place of debarkation, most of the immigrants, in their progress westward, take the New York channels—canals and railroads. To be situated on the principal route of a large immigration is now, as it ever has been, a great advantage to cities. Witness the growth of cities along the Erie Canal, when that was the principal thoroughfare of our migrating people westward. Trace the line of immigration through Bremen, Havre, and Liverpool, New York, Albany, Buffalo, Cleveland, Toledo, Detroit, Chicago, Milwaukee, and thence westward, and you will not fail to perceive how fructifying are the constant accretions, by the way, which this steady current of migration produces. This swelling tide of human beings has been checked for a season only, to break over its barriers and flow in a larger and fuller current in the future. This will be hastened and heightened by the effect of the late law of Congress donating land to settlers on the public domain. A fair estimate of the industrial character of the inhabitants about these cities may be predicated on the character of the country in which they are located respectively. Toledo is surrounded, to a large extent, by a timbered region of such great fertility as to be inviting only to the most healthy and resolute agriculturists as settlers. Lazy or irresolute pioneers will not encounter the labor needed to subdue the dense forest. Only bold hearts and strong arms are equal to the task of converting the forest into smiling meadows, wheat fields, and orchards. But, when the forest is subdued, not only will these fields be more certain of a profitable return, in large crops; but the strong hearts and arms will be there to add good houses and barns, orchards and roads, and to do whatever else is needful to build up a civilized society. This resolute population will be just in the place where the best returns for the most various cultivation may be expected to result. It is, in climate, the best fruit-growing section of the great interior plain; and, in adaptation of soil, it is equal to the best. A dense as well as an industrious population will result, giving a decided advantage to Toledo.

Chicago is bounded, on the south side, for many miles, by a flat prairie, not adapted to fruit growing, and very bleak and uninviting to the small farmer. Well drained, it will produce good crops of corn, oats, and grass when the season is not very wet or very dry. For winter wheat and for grass it is quite inferior to land of like fertility cleared from the forest, and less certain in unfavorable seasons to produce good summer crops. These objections apply, chiefly, to the flat prairies near Chicago; but, with less force, they are applicable also to the rolling prairies at a greater distance. The advantages to the former, of timber land, cannot be duly appreciated without experience of their privation. Fuel, fences, buildings, repairs of tools, protection from the wintry blasts and summer heats—these come up in the mind of the settler with great force. But, the superiority of the wooded region, and especially that about the west end of lake Erie, for fruit growing, should give it an unhesitating preference over the prairie countries by every intelligent seeker for the best place for cultivating fruit. There are but small portions of the settled parts of our extensive country in which a crop of the best fruits of a temperate climate can be relied on with reasonable certainty from year to year. Among these may be unhesitatingly placed the southwestern borders of lake Erie. In spring, the cool winds from the thawing ice keep back vegetation so as, usually, to save fruit buds from killing frosts. The autumn frosts are likewise delayed, near the lake waters, giving time for late-ripening fruits to mature, and for wood and fruit buds to mature so as to perfect their growth and round out the year of vegetable life.

An improvement, long contemplated as a possible exploit of a future generation, may have the effect to give to Toledo commercial advantages above and beyond those of Chicago. A large canal across the base of the peninsula of Michigan, to connect the navigable waters of lakes Erie and Michigan, is among the possible achievments of the future. Surveys have proved its practicability. The only summit level is less than four hundred feet above the lakes. Such canal carried westward down the Hankakee or Calumet valley, to connect with the enlarged Illinois Canal, would give the best practicable water channel of commerce between Lake Erie and the center of commerce of the Mississippi valley, at St. Louis. The distance by this route, as compared with that by way of Chicago, lakes Michigan, Huron, and St. Clair, would be shortened about four hundred and fifty miles, avoiding much risk and some delay. Early in Spring and late in Autumn, it would be likely to take the place of the lake routes, to a great extent. On articles of high value in proportion to weight, the saving of insurance would be equal to a fair freight charge. If, in addition to the improvement of the Illinois River, as recommended to Congress, fitting it for the passage of river and lake steamers, a short canal of equal capacity to the contemplated enlarged Illinois Canal were constructed, to connect its navigation with that of the upper Mississippi, at the mouth of Rock River, a great extension of easy commercial intercourse, by water, between the Mississippi basin and the lake basin, would be effected. Commercially, the Mississippi at Rock Island, would be turned from its natural course and flow eastward into the great lakes at Chicago and Toledo. By the improvement of the Illinois River to the entrance of the canals, from the East, the Missouri River will be turned, commercially, northeastward into the same channel. The instrumentalities to be used in the navigation of the canals, rivers, and lakes,

will certainly be much superior to those now in use. Whether it shall be a greatly improved steam engine that shall furnish the motive power, or some new instrument to supersede, by its superiority, this instrument, we can only conjecture. That canals are again to be in fashion, that a counter revolution in their favor is now in progress, seems evident. Such canals, too, we may anticipate, will be constructed as shall be adapted to the increased power of man to overcome the opposing forces of nature. Our central plain especially invites the introduction of canals to connect the great water highway of commerce given it, in the chain of great lakes and the Missouri-Mississippi family of rivers. In their flow, these great channels approach each other near their central portions, only to discharge their waters at widely divergent points, on different sides of the continent; one pointing the way towards the central commerce of Europe; and the other, in the direction of the central sea of America, where the commerce of the tropics—the west coast of America and the east coast of Asia—naturally meets. Enterprising man is here offered a great reward for the exercise of his best powers to unite into one these two great national highroads of commerce, by canals, adequate to the accommodation of the best vessels adapted to the navigation of the lakes and the rivers; such adaptation, ultimately, perhaps, to be made to embrace ocean navigation also. The great national railway from the central plain to the Pacific, will have much efficiency added to its commercial power, by meeting, in the middle of the continent, cheap water transportation eastward. Is it objected that canals adapted to large vessels and the use of steam power, made to connect the waters of lakes Erie and Michigan with those of the Mississippi-Missouri, is a work requiring immense labor and must cost many millions of dollars? All the more should we covet the glory and reward for overcoming these obstacles; all the more shall we strengthen ourselves, by the exertions called for, to accomplish the great work. Holland, with much less means, made herself great and strong by the construction and use of her immense works of excavation and embankment; her canals and sea walls.

Without the construction of these navigable channels between the great lakes and the great interior rivers, the connection of our continental commerce is but partial, unfinished, incomplete. It seems probable that Toledo would derive more benefit from the construction of such canals than Chicago. The enlargement of the Miami and Erie Canal, between Toledo and Cincinnati, and of the Wabash and Erie westward of its junction with the large canal above mentioned, would enure to the special benefit of Toledo, while the great lines westward from the head of the lakes, on which they are situated, would probably be equally beneficial to both cities. Chicago has the great advantage of a present population seven or eight times as numerous as that of Toledo. The causes of this superiority have nearly spent their force, so that, from 1850 to 1860, the percentage of increases, as has been shown, was nearly identical. A city of 120,000 has great resources, in itself, not possessed by one of 16,000. It is a start in the race, the benefit of which will probably be lasting and difficult to balance by others less positive of the smaller competitor. Chicago has a more extended and complete system of railroads radiating from it. This advantage is but temporary. It has the advantage of being nearer and more accessible to the central point of the interior river system of navigation. This advantage may be overcome and perhaps be

turned against it by a ship canal from Toledo to the Illinois Canal, such as is advocated in this article. But such ship canal will, probably, only come after many years of enjoyment, by Chicago, of a large canal connecting the navigation of the lakes with the Mississippi waters. In facilities for the manufacture and distribution of articles, to be needed and used by a great surrounding population industrious, intelligent, and progressive, the two cities seem to possess nearly equal advantages. Both will be supplied with raw materials of manufacture, such as crude iron, copper, and other useful metals, wool, cotton, hemp, flax, &c., at a small advance of price above the cost of production. Both will be supplied with coal in like manner; each being near the inexhaustible coal beds of Michigan and Illinois. In water power and cheap timber Toledo has the advantage, and may, therefore, claim to lead in the manufacture of articles chiefly made of wood: vessels, boats, furniture, wagons, &c. For the construction of quays, houses, &c., of wood, Toledo is the best place; but, for buildings of stone, brick, iron, the advantages are nearly balanced, both having ample resources for that object. The cost of living will not be materially different. The dweller in Chicago will buy his meat at less cost, but he will have to give more for fruits and most foreign products. Also for the best products of the dairy. The cost of the water supply will probably be less in Toledo, as it now stands ready for use in the large canal forty-nine feet higher than the water of the harbor; the source of supply being little less than the entire flow of the Maumee River. Artesian wells of about one hundred feet in depth offer excellent water, above and near the surface, all over the city and surrounding country. Toledo has special merits not possessed by Chicago: 1st, In the shape and elevation of the ground on which it is being built. The average elevation of its site within the corporate limits is not less than forty-five feet above the harbor. Its surface is varied, rising from ten feet above high water to upwards of fifty feet, thus affording facilities for good drainage. 2d, In the breadth, capacity, and easy access of its harbor. This may be described as five miles long by nearly half a mile wide, having two sides of a diamond shaped parallelogram, and having a depth of from fifteen to thirty-five feet. It is formed by the estuary of the Maumee River, one of the largest streams flowing into the lakes, having a drainage of about 8,000 square miles. The entrance of the harbor, through the bay of the same name, is easy and safe in all kinds of weather. 3d, In the concentration of all the railroads and canals at one place near the center of the city, and in such a manner as in no way to interfere with the use of streets. The railways nowhere cross a city street on grade, and the canals and other navigable channels do not interfere, necessarily, but in one or two places with the uninterrupted use of streets. An unnecessary and useless side canal, passing through a portion of the city and standing almost unused, will probably be filled up soon, and thus free the streets which it crosses from its obstruction.

These special merits of Toledo contrast with the low, level site; the narrow, long, and crooked harbor of difficult entrance in a storm; the numerous impediments in the streets, caused by ferries and draw-bridges; the railway tracks on grade; and the scattered termini of railroads of Chicago. The superiority of Toledo for good drainage, and the strong current of a large river favorable to a speedy removal of filth thrown into it by the sewers, may be relied on, to some extent, to make it more healthy than Chicago.

One hundred years! What may not we hope of development on our continent, in our country, within this period; long, if measured by the ordinary duration of human life, short, compared with the life of nations, and very short in comparison with the life of the human race. Looking back one hundred years, we find that some four millions, at the commencement of the century, inhabiting the then British colonies of North America, have increased to upwards of thirty-five millions. The city of New York was, then, about the present size of Toledo, with a commerce less than one-fifth of that now centering in this recent city. All the cities of the colonies, then, aggregated a less population than is embraced in the new city of Chicago. The general population has increased nearly ten-fold, and the city population more than thirty-fold. Our wealth and resources have increased in a still larger proportion than our cities. One hundred years to come, with the command of steam, electricity, and we know not what other and superior agencies for wonder working, can scarcely fail to produce results of a magnitude and variety far beyond and above the conceptions of the most gifted and the best instructed immagination of our time. The cities of Western Europe and Eastern Asia are grand productions of human society, but they will be deemed rude and small, in comparison with the vast capitals which, in the period of one hundred years, will grow up on our continent.

TRADE AND COMMERCE OF SICILY.

Attention has been recently called to the productive powers of the beautiful island of Sicily by the publication—ordered by the House of Commons—of the report of the British consul there, from which we glean some instructive statistics respecting that new appanage of the crown of Italy. The population is stated to be two millions and a half. In 1860 the commerce of Sicily was a little more than £5,000,000, and in the following year it increased to upwards of £6,000,000. It appears, nevertheless, that while the trade between France and Sicily has increased, there has been a decrease in the trade with England and America; that with France having risen from £920,000 to £1,360,000, while British trade has declined from £2,270,000 to £1,700,000, and the trade with America has slightly fallen off. Mr. Goodwin shows that the American trade with the island in 1860 represented £540,000, and in 1861 £514,000, not a serious decrease, considering the present position of transatlantic affairs. The consul winds up his report respecting the resources of this celebrated island in the following glowing terms: "The King of Italy possesses, in the position of Sicily, the fertility of its soil, and the richness of its veins, a permanent source of wealth which, wisely administered, would not fail to raise Sicily shortly to unexampled prosperity. It rests with Victor Emmanuel to make Sicily the greatest exporter in Southern Europe of raw and prepared produce, by carrying out the already adopted principles of free trade to their full extent in all branches of industry." When Italy becomes settled the development of Sicily will commence—an event in all probability not far distant.

THE COTTON QUESTION—THE SUPPLY—A SUBSTITUTE.

The great distress experienced in the manufacturing districts of England and France may be said now to have reached a point from which improvement and gradual relief can be anticipated. We would not be understood to say that there is soon to be an abundance of cotton again on the market, but only that the worst phase of the present crisis is passed. Proof of this will be found in these two facts: 1. That the consumption has been so reduced as to be less than the supply, and we may therefore look for an increase of stock. 2. Every month must increase the productability of the new sources of supply now in course of development.

As to the supply, the following table of the movement of the stock at Liverpool since July 1st, with the corresponding periods of 1860 and 1861, is of interest in this connection, showing, as it does, that there is even now a rally in the amount on hand:

Stock,	1862.	1861.	1860.
July 4.....bales	184,940	1,108,300	1,298,490
" 11.....	156,980	1,101,730	1,227,990
" 18.....	155,490	1,053,710	1,287,520
" 25.....	171,430	1,001,090	1,283,230
Aug. 2.....	161,500	1,019,100	1,241,370
" 9.....	158,750	989,940	1,203,740
" 16.....	125,310	944,360	1,157,590
" 23.....	82,420	912,130	1,128,210
" 30.....	62,980	887,120	1,093,200
Sept. 5.....	58,150	886,680	1,022,370
" 12.....	92,330	868,260	941,810

In addition to this amount now on hand, it is estimated that from 500,000 to 600,000 bales are expected to come to hand before the close of the year. At the same time, the consumption in Great Britain has been reduced to a weekly average of from 20,000 to 25,000 bales, as compared with a weekly average of 46,240 bales last year, while the export has been reduced to 8,740 bales per week.* Hence, if these estimates hold good, and they are made by the best authorities, there must be an increase of

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* This reduction in exports did not take place till September. Prior to that date the amount was wonderfully large considering the high price. The following table shows the weekly export for the first eight months of 1862, compared with 1859, 1860, and 1861:

	Weekly home consumption.	Weekly export.
1859.....bales	44,000	8,400
1860.....	50,600	11,700
1861.....	43,300	13,000
First eight months of 1862.....	28,200	12,000

stock at Liverpool the next three months. We trust, therefore, that we have seen the worst of this cotton famine.

As to the efforts now being made to find a substitute for this remarkable staple, we have but little faith in their success, and yet such an event of course is not impossible. England is at the present time agitating this question earnestly, and if a will can always find a way, we may be hopeful. We do not propose at this time to discuss these various new undertakings, but merely to call attention to the following, showing the nature of the most of them:

1. It may be remembered that some years since, Chevalier CLAUSSEN—who we regret to learn is now in a lunatic asylum—patented a number of schemes for improving the preparation and bleaching of flax, among which was one for cutting up the fiber into fitting lengths for manufacture on cotton machinery. The material, thus prepared, was tried by several manufacturers, but it never succeeded in making its way into general consumption, or even into general publicity. Whether, however, its failure was owing to its inherent unsuitability for the purpose intended, or to the fact that, as cotton was then tolerably abundant, it could not compete with it in price, we are unable to state positively. Probably the former; for even during the recent scarcity of cotton we have heard of no attempts to revive the Chevalier's invention.

2. *Flax waste*, however—the short fibers of that article which are unfitted for the linen manufacturer, and which are separated from the longer ones in the early processes—is capable of being mixed with either Orleans or Surat cotton in the proportion of one-fourth or one-third; and as far as it goes has been, and is now being, used for this purpose with advantage and without impairing the value of the fabric. But as the quantity available is of course only limited, any general demand for it would so raise the price as to make it no longer profitable. It is a resource for individual manufacturers, therefore, but scarcely for the trade generally.

3. *Jute*—a species of hemp, which already goes to England in great quantities, and the growth of which in India might be increased to almost any extent, and which could be supplied at a reasonable rate—is looked to with much hope by many, and Mr. THOMPSON has recently effected and registered in England some improvements in the preparation of it, which it is hoped may render it capable of manipulation on cotton machinery. The article produced is promising, but at present it is long and somewhat coarse in fiber, and appears more similar to, and more fit for mixing with, wool than cotton. It may possibly in time be adapted for cotton machinery, but is not so yet.

4. In the United States there is a patent in operation for making flax fiber at once into a substitute for cotton; but it is, we believe, a rude substance and not superior, for practical use, to the waste flax already mentioned. It needs, moreover, thirty or forty per cent of American cotton to work with it.

5. A Frenchman has invented or discovered a very neat article, which is reported to be promising. He has forwarded samples to Manchester, on the faith of which a large order was sent him, which, however, he declined to execute. It seems probable, therefore, that the article is not one which, at present at least, can be furnished in adequate quantities. Moreover, he

declines to tell his secret without very handsome preliminary remuneration.

6. *China grass* is said also to offer a very promising substitute, not unlike Manilla hemp, but its working qualities have not yet been experimentally ascertained. Like all the other fibrous materials yet proposed, it can, we understand, only be worked in conjunction with a large proportion of real cotton. Moreover, this and all the other materials yet suggested, flax included, are *woody* fibre, and as such essentially and incurably different in nature from cotton, and devoid both of the elasticity and the smoothness which render it so valuable. They may, therefore, cheapen linen or woolen goods, but can scarcely supersede or supplement cotton.

7. The latter part of September a gentleman of the name of HARBEN explained to a party of competent manufacturers in Manchester his plan for meeting the want of cotton. This consisted of the adaptation to machinery of the fibres of a sea plant called *Zostera Marina*, found in large quantities on the coast in many parts of the Kingdom. In fact it is a very common ribin-like substance, usually regarded as a sort of sea weed, though said to belong to a different class botanically. It is said to have been already applied with some success to the manufacture of paper. The specimens of the article, however, which Mr. HARBEN submitted to the committee of investigation were so exceedingly scanty and inadequate, that it was impossible for those who examined them to form any opinion from them of the suitability or availability of the material; nor had Mr. HARBEN made any experiments with it to ascertain whether it could be made fit for spinning on cotton machinery; nor was he prepared with any calculations of the cost at which it could be furnished in a workable state. Under these circumstances, of course, it would be premature either to pronounce respecting it, or, we fear, to hope much from it.

8. A client of the Messrs. PHILIPS of London announce the *invention* of a substitute, as stated in the last number of the *Merchants' Magazine;* but the nature of it has not yet been made public.

9. A plant called the *conserva bullosa*, or craw silk, has also been proposed. In LIGHTFOOT'S *Flora Scotica* the following account is given of the uses of the *conserva bullosa*: "It is of soft substance, and in pure water, where the threads grow long, resembles tow. But in muddy water, where they are short, it is not unlike cotton; which, being carefully collected and dried, turns whitish, and has (according to DILLENIUS, WEISS, HALLER, BOMARE, WITHERING, and other authorities,) been used instead of cotton." It may be met with in great abundance in almost every ditch and pool, especially old clay pits and slow streams. In cold weather it is always below the surface of the water, and forms a mass of yellowish green fibers, very fine, and interlacing each other in every direction. In summer it rises to the surface in large fleece-like masses, commonly of a deep green color, and a spongy texture. If raked out of the water, and exposed for a few days to the sun, it loses its green color and becomes bleached.

The above embrace about all the substitutes as yet proposed. Time alone can determine their value. This list forms an important part of the commercial history of the times.

JOURNAL OF MERCANTILE LAW.

1. Auctioneer—Contract with Bidder—How far Auctioneer is bound to accept all Bids indiscriminately. 2. Transfer of Property in a Ship. 3. What is sufficient Evidence of the Cause of Damage to Cargo. 4. The Petroleum Oil Act of England.

AUCTIONEER—CONTRACT WITH BIDDER—HOW FAR AUCTIONEER IS BOUND TO ACCEPT ALL BIDS INDISCRIMINATELY.

We find reported in the *Law Journal* of Canada the case of Holder *vs.* Jackson, in which the court holds that an auctioneer is not bound to accept all bids, as a matter of course, from persons present at his auction; and that, therefore, an action will not lie for refusing to accept such bids unless by reason of some special conditions or terms of the sale.

The facts of the case, and opinion of the court, were in substance as follows:

The action was brought by the bidder for damages. The declaration charged the defendant with wrongfully, maliciously, and without reasonable or just cause refusing to accept plaintiff's biddings at an auction for articles offered for sale, when the plaintiff had already been the highest bidder for, and had certain other articles knocked down to him as the purchaser thereof. The inducement laid was that plaintiff was in the habit of buying at auction for himself and on commission for other persons, (not averring notice thereof to defendant.) That defendant, as an auctioneer, was holding a sale at public auction on the following conditions: every article to be taken as it may turn out to be good, bad, or indifferent; any lot in dispute at the time of being adjudged to be resold to the highest bidder. Terms of payment, cash, prior to the goods being removed or delivered, which was to take place after the sale was closed. Any articles remaining unsettled for agreeably to the terms of sale to be resold on account and risk of the purchaser. Persons purchasing to the extent of £50 or upwards, can have a credit of three months, by furnishing approved endorsed notes. Plaintiff did not assert that he was the highest bidder for any article which was not adjudged to him, but that the refusal of his bids prevented his becoming the highest bidder. Nor did he aver that he purchased some articles with intent to buy others, enough together to amount to £50; so that defendant's refusal to accept subsequent bids prevented this, whereby he was obliged to pay cash for what he did buy. This, we say, the plaintiff did not state; but his claim rested on the assumption that an auctioneer at a public sale must receive the bidding or offer of any and every person present, and does a wrong to any person whose bidding or offer he declines to notice and receive.

The judge said that he could understand that possibly an auctioneer may do a wrong to a seller by refusing bids. As he is agent for the seller *ab initio* he has the right to settle not merely the terms of sale, but to regulate the biddings; as for example, to say he will not receive any bid which does not advance a given sum upon the last preceding bid. He is under no contract with the intending purchasers, unless it arises

from the expressed terms or conditions of sale, until by accepting their bids he becomes bound to complete the sale according to those conditions. As, in case his conditions state the sale to be without reserve, he is bound by a contract to sell to the highest bidder who is not the owner or agent for the owner. A bid, therefore, by or on behalf of his principal is contrary to the contract to sell *without reserve*, and the auctioneer cannot receive it to the prejudice of the last preceding bidder. WARLOW *vs.* HARRISON, (5 Jur. N. S. 313, and 6 Jur. N. S. 66.)

But in a sale such as it is stated in this count, I do not understand on what ground any person can claim as a right to be allowed to bid—to offer to become a purchaser. It will be going beyond any authority I have seen to hold, that by holding an auction under such circumstances there is an implied duty or contract to deal with any person who presents himself, and that the auctioneer, with due regard to his responsibilities to his principals has not a right to refuse to deal with any particular person. The principal might refuse from mere caprice to sell to A, B, or C, and might direct the auctioneer to refuse to sell to certain parties, and I can see no reason why the auctioneer (the agent) is bound by law to accept offers or bids, any more than his principal would be. There are no special circumstances shown to prevent his exercising a discretion, which may be very necessary under circumstances easy to imagine.

The court, therefore, gave judgment for defendant.

TRANSFER OF PROPERTY IN A SHIP.

The Statute of Registration provides, that, "in every case of sale or transfer, there shall be some instrument in writing, in the nature of a bill of sale, which shall recite at length the said certificate; otherwise the said ship or vessel shall be incapable of being registered anew." It follows, therefore, that a merely oral transfer, although for valuable consideration, and followed by possession, gives the transferee no right to claim a new register setting forth his ownership. But this is all. There is nothing in this statute to prevent the property from passing to and vesting in such transferee. It is, however, unquestionably a principle of the maritime law generally, that property in a ship should pass by a written instrument. And as this principle seems to be adopted by the statute, the courts have sometimes almost denied the validity of a merely parol transfer. The weight of authority and of reason is, however, undoubtedly in favor of the conclusion stated by Judge STORY, that "the registry acts have not, in any degree, changed the common law as to the manner of transferring this species of property." It would follow, therefore, that such transfer would be valid, and would pass the property.

The English registry act provides, that "when the property in any ship, or in any part thereof, shall, after registry, be sold, the same shall be transferred by bill of sale, or other instrument in writing, containing a recital of the certificate of registry, or the principal contents thereof; otherwise, such transfer shall not be valid or effectual for any purpose whatever, either in law or in equity." Our registry act contained no such provision. Perhaps this important omission arose from a doubt whether legislating concerning the transfer of ships at home, as property, could be considered as a regulation of commerce; for if not, it was not within their constitutional power.

In 1850, Congress, however, passed an act, "to provide for recording the conveyances of vessels, and for other purposes." By this statute it was provided "that no bill of sale, mortgage, hypothecation, or conveyance of any vessel or part of any vessel of the United States, shall be valid against any person other than the grantor or mortgagor, his heirs and devisees, and persons having actual notice thereof; unless such bill of sale, mortgage, hypothecation, or conveyance be recorded in the office of the collector of the customs where such vessel is registered or enrolled." Then follows an exception in favor of liens by bottomry, and in subsequent sections are provisions for recording by the collector, and giving certificates, &c.

This statute has no effect, that we perceive, upon oral transfers, excepting that, as they cannot be recorded, their operation is limited to the grantors and those who have actual notice. Where the transfer is by bill of sale, the record of this, under the late statute, is, perhaps, notice to all the world. But in most of our States there are already provisions for the record of mortgages of personal property, and it may be a difficult question how these are affected by this statute of the United States. For example, if there be such a record as is required by the State law, is this sufficient, without a custom-house record, either because it is a public notice, which is the equivalent of actual notice to everybody, or because the State has the right to regulate this matter; or, if there be a record in the custom-house and none which conforms to the State requirements, is this sufficient against all the world? If we suppose this statute to be constitutional, of which we do not, however, feel certain, we should say that it controlled and superseded the State statute, so as to make that unnecessary and ineffectual; and therefore a record in the custom-house only would be sufficient, and a record under the State law would affect only those who had actual knowledge of it.

As a ship is a chattel, a transfer of it should be accompanied by a delivery of possession. Actual delivery is sometimes impossible where a ship is at sea; and perhaps the statute of 1850 makes the record of the transfer equivalent to change of possession. If there be no record, possession should be taken as soon as possible; and prudence would still require the same course, we think, in case of transfer by writing and record.

There have been cases which have been supposed to intimate that, as between two innocent purchasers, he that gets actual possession first completes his title as against the other. We doubt the correctness of this in all cases. We say rather, that if A becomes in good faith the purchaser of a vessel, and has taken *constructive* possession, (as by having a bill of sale indorsed on the register and recorded in the custom-house, and taking an order to the master or other person in possession to deliver her up,) he has no right to delay unnecessarily the taking *actual* possession, for this may deceive and injure other persons. And if B, a second purchaser, in ignorance of the first purchase, during such delay or neglect gets actual possession, he would hold the vessel; unless, indeed, prevented by the record. But if B gets actual possession before A, but while A was so prevented that his want of actual possession cannot be imputed to him as neglect, A will get a better title than B, if he (A) takes actual possession as soon as he can.

By the word "ship," and still more by the phrase "ship and her appurtenances," or "apparel," or "furniture," everything would pass which was distinctly connected with the ship, and is on board of her, and fastened to

her if that be usual, and needed for her navigation or for her safety. Kentledge, a valuable kind of permanent ballast, has been held to pass with the ship; so have a rudder and cordage prepared for a vessel, but not yet attached to her, and not quite finished; and so would a boat, anchors, &c., generally. But the answer to the question, What is part of the ship? must always depend somewhat upon the words of the instrument, and upon the circumstances of the case and the intention of the parties.

Sometimes, when a ship is built, she is paid for in instalments. If these are regulated by the progress in building, so that, when so much is done, a sum deemed equivalent to the labor and materials used shall be paid, and when more is done, another sum in due proportion, and so on, it is held that each payment purchases the ship as she lies; and if she be lost after any such payments, the loss is the loss of the purchaser. But if paid for, so much down, and so much at a certain time, so much at another, &c., without reference to the state of the ship at these times, these are only payments on account, and the ship does not belong to the purchaser until completed and delivered.

A sale by the decree of any regular court of admiralty, with due notice to all parties, and with proper precautions to protect the interests of all, and guard against fraud or precipitancy, would undoubtedly be acknowledged by courts of admiralty of every other nation as transferring the property effectually.—(*Laws of Business for Business Men*, page 273.)

WHAT IS SUFFICIENT EVIDENCE OF THE CAUSE OF DAMAGE TO CARGO.

The *Mercantile Gazette* of San Francisco says:

"A decision of some importance has recently been made in the United States District Court in the case of Locke and Montague *vs.* ship Blondel. A libel was filed to recover damages for injuries by rust to a lot of iron consigned to plaintiffs by said vessel. It was contended on the part of the owners of the ship that she experienced rough weather in coming around Cape Horn, labored and strained very much, and leaked through her waterway seams, and that the damage was excepted against in the bill of lading. On the other hand, it was proven that the damage to the iron was caused by fresh and not by salt water. It is stated that the effect of the latter is to cause corrosion of the surface of the iron, and its action on the metal continues even after it has been dried and cleaned. The reverse is the case where the injury has been occasioned by fresh water. There is even some conflict of opinion as to the cause of the damage in this case. But the preponderance of evidence is decidedly in favor of the theory of the libelants, that the injury was caused by fresh water.

The Court says:

"'The mere circumstance that the vessel, in coming around the Horn, encountered heavy weather, is not enough, for such proof can almost always be adduced. He should go further and show, by the condition of the vessel on her arrival, the nature and extent of her leaks, etc., that their natural and necessary effect was to cause the damage that has occurred. In this case no such proofs have been offered, with the single exception of an observation of one of the officers, that one of the leaks was above the coal or so situated as to cause some of the damage. Nor has the ship excluded

the conclusion of negligence, by showing that the stowage was good, for it is not shown that the coal, among which the iron was stowed, when put on board, was dry. One fact, which is admitted by the officers, would seem inconsistent with the notion that the damage was caused by straining and consequent leakage.

"'It appears that none of the cargo on the between decks were injured, with the exception of one or two packages. If the vessel strained and leaked so badly, as alleged, it is strange that the iron in the lower hold was the only part of the cargo that suffered.

"'If, to these considerations, we add the fact that in the opinion of the majority of the witnesses, the injury was caused by fresh and not by salt water, the conclusion is, I think clear, that the carrier has not established that the injury was caused by one of the excepted points. He is therefore liable. A decree must be entered for $400, the amount of damages settled by stipulation.'"

THE PETROLEUM OIL ACT OF ENGLAND.

In the August number of the *Merchants' Magazine*, (vol. 47, page 127,) we referred to a bill which was about being acted upon by Parliament for the regulation of the safe keeping of petroleum. The act after being modified was passed, and the following digest of it we take from the London *Ironmonger:*

The enactment is entitled, "An Act for the safe keeping of Petroleum." It states that it is expedient to provide for the safe keeping of petroleum and certain products that are dangerous to life and property from their properties of giving off inflammable vapors at low temperatures.

It defines "petroleum" *for the purposes of this act*, as any product thereof that gives off inflammable vapors at less than 100 degrees of Fahrenheit's thermometer.

It enacts that after the 1st of October in this present year, 1862, not more than forty gallons of *such* petroleum shall be kept within forty yards of a dwelling-house or any building in which goods are stored, except by virtue of a license, granted by the local authorities. This regulation to be enforced by a penalty not exceeding twenty pounds a day for each day during which it is so kept.

The local authorities empowered to grant licenses to store more than forty gallons of inflammable petroleum are as follows:

In the city of London, the Court of Lord Mayor and Aldermen:

In the metropolis, except the city of London, the Metropolitan Board of Works:

In any borough in England or Ireland, the mayor, aldermen, and burgesses:

In any place in England or Ireland, within the jurisdiction of any trustees or improvement commissioners, appointed under the provisions of any act of Parliament, the trustees or commissioners:

In any burgh or place in Scotland, not subject to the jurisdiction of police commissioners or trustees, the town council; but in any burgh or place in Scotland, within the jurisdiction of police commissioners, then the police commissioners:

In any harbor within the jurisdiction of a harbor authority, the harbor authority, to the exclusion of any other local authority:

In any place in England or Ireland in which there is no local authority, the justices in petty sessions, and in Scotland any two justices of the peace for the county.

Licenses in pursuance of this act may be granted for a limited time, and there may be annexed thereto any conditions as to renewal or otherwise which the local authority thinks necessary for diminishing the risk of damage from explosion or fire; and any licensee violating any of the conditions of his license shall be deemed to be an unlicensed person.

If, on any application for a license under this act, the local authority refuses the license, or grants the same only on conditions with which the applicant is dissatisfied, he may memorialize the Secretary of State, and it shall be lawful for the Secretary of State, on consideration of such memorial, after due inquiry, to grant the license prayed for, or to alter or modify the conditions imposed by the local authority.

Any forfeiture or penalty for an offence against this act may be enforced in England and Ireland upon summary conviction before any two justices; and one-half of the penalty shall belong to her Majesty, and the other to the informer, unless the informer is a servant of the person informed against.

Any forfeiture or penalty for an offence against this act may be enforced in Scotland upon summary conviction, and the offender may be sentenced to imprisonment, until such penalty and the expenses are paid, for a period not exceeding three months.

Petroleum may be searched for in the same manner, and subject to the same conditions under which gunpowder may be searched for.

All powers given by this act shall be deemed to be in addition to any other powers conferred on any local authority by act of Parliament, law, or custom; and nothing in this act shall exempt any person from any penalty to which he would otherwise be subject in respect of a nuisance.

It will be seen that this act does not apply, in any way, to oils that require to be heated above 100 degrees of Fahrenheit's thermometer before they give off inflammable vapor; all good burning oils are of this character, hence the retailer of mineral oils has only to satisfy himself that they are above this proof standard, and he may keep any quantity in stock without requiring a license. It is obvious, however, that the lighter oils sold as mineral turps are below this standard. We have purposely examined two samples, and find that both give off inflammable vapor below 70 degrees Fahrenheit; hence a vendor, wholesale or retail, keeping above forty gallons in stock, would require a license, or be subjected to the heavy penalties named in the act.

From the loose wording of the act we cannot decide whether it applies to other liquids than "Petroleum and certain products thereof." If these terms are taken in their usual signification, the act would not apply to paraffine obtained from the distillation of coal, or to its products, such as benzole, etc., however dangerous; but we should feel inclined to think that the operation of the act would be extended to all hydrocarbon oils, however obtained.

COMMERCIAL CHRONICLE AND REVIEW.

PROGRESS OF PAPER—GOVERNMENT EMBARRASSMENTS—APPRECIATION OF GOLD—SPECULATIVE MOVEMENT—THEORIES OF PAPER CURRENCY—ALLEDGED CAUSES OF APPRECIATION—GENERAL ADVANCE IN PRICES—LOSSES OF CONTRACTORS—GOVERNMENT REMITTANCES—WAR EXPENSES—ULTIMATE DISCREDIT—EVILS OF CONTRACTION—INTERFERENCE—LARGER IMPORTATIONS—IMPORTS—VALUATIONS—COST OF GOODS—EXPORTS—RATES OF EXCHANGE—RAPID RISE IN BILLS—GOLD MOVEMENT—INCREASED EXPORTS OF GOLD—SMALL CURRENCY—TAX LAW.

THE operations of the past month have been distinguished for a very rapid development of the inevitable tendency of the paper system of the government, and for its disturbing effects upon the course of business, the values of securities, and the finances of the government. The most prominent indication of the course of events has been the apparent rise in the premium on gold, caused by the depreciation of the government paper used as a currency, aided by the operations of those who seek to profit by the course of events. It is hardly worth while to allude to the various theories put forth to account for the phenomena of the markets, by those who refuse to admit the unsoundness of the paper system, and the depreciation which inevitably attends all inconvertible promises, whether emitted by government or individuals. The rise in gold, it is alleged, is purely speculative, which may be stopped by decisions of the banks, votes of the board of brokers, or decrees of the government; the advance in exchange, it is said, has a similar origin; the rise in stocks, it is averred, is due to their great prosperity and intrinsic value; but the whole list of commodities embraced in the *prices current* show the same results. The rise was about ten per cent all round, and for each improvement an especial reason is assigned, in order to avoid recognizing the only universal cause, viz: the depreciation of the paper in comparison with all commodities and securities. There is no doubt but that numbers of persons knowing that paper will inevitably depreciate as compared with gold, hold gold, and for the same reason others hold other commodities. They do not make the depreciation; they only avail themselves of it. Meantime numbers realize fortunes in the apparent advance, and others are ruined. The government is embarrassed in its remittances to its diplomatic and other agents by the high price of exchange, by which fifty per cent is added to the expense; contractors who agreed to furnish supplies of goods and provisions at certain rates find themselves ruined in the rise, and new appropriations must be made by Congress to cover the deficits. This is one form in which the war expenses are increased. The expenses of the war increase in proportion to the depreciation of the paper, involving the necessity of further issues, which, in their turn, accelerate the depreciation. When the Secretary of the Treasury entered upon this course of finance he commenced a system which has no turning, but which rolls on with accelerated force, until the paper becomes entirely discredited. The moment of distress is not while prices are rising and the majority of people profit by the rise, which, of itself, is but an indication of the eagerness of holders of paper to get something of value in exchange for it; but it is when distrust having become general, holders of commodities refuse to part with them except for gold, and that at very low prices as compared with the apparent paper values. The government itself having inaugurated the rise, cannot retrace its

steps, first, because it has not the means to recall its paper, and, second, because it could not withstand the clamor caused by contracting prices and falling values generally, which would make taxes doubly onerous. The attempt to interfere with the movement of gold or the freedom of individual action would only precipitate the loss of that confidence on which the whole system now hangs. The apparent prosperity which the rising prices have caused has induced large importations of goods, and caused a heavy balance against the country, although the changing medium of value has imparted a deceptive appearance to the official returns. The imports at the port of New York for the month have been as follows:

IMPORTS, PORT OF NEW YORK.

			Entered for		
	Specie.	Free goods.	Consumption.	Warehouse.	Total.
January.....	$168,658	$2,552,050	$6,663,396	$3,141,725	$12,620,829
February.....	62,007	3,381,473	7,058,174	8,370,486	13,872,140
March	89,327	3,476,004	10,312,689	4,841,846	18,719,866
April.....	26,152	2,232,315	7,141,197	3,853,218	13,252,882
May.....	110,383	1,146,093	8,091,120	4,600,920	12,948,516
June	61,023	1,122,092	7,278,953	2,874,127	12,336,195
July.....	219,001	1,831,932	13,799,505	4,502,764	20,353,202
August	92,713	982.992	10,289,427	2 939,721	14,304,843
September.....	121,318	1,784,804	11,890,711	4,351,084	18,147,917
Total, 9 months..	$945,577	$18,809,755	$82,625,172	$35,475,891	$137,856,395
" 1861.....	35,186,780	23,651,574	41,657,913	34,492,899	134,989,116

The quantity of goods imported has been very considerable, and they are valued in the foreign or specie currency. Thus, by law, the British goods are valued at the custom-house at $4 84 the £ sterling; but the amount that the importer is required to pay is very much larger. For the month of September the rate of exchange for duties was thirty per cent, or twenty per cent above par, and gold was sixteen per cent. There having been in round numbers $14,000,000 entered for consumption in September, and the duties paid being $5,239,045, the cost to the importer was, extra exchange $2,800,000, premium for notes for duties $838,000—total $3,638,000, which, added to the imports, makes $17,638,000. This amount was paid to holders of gold notes, and to exchange dealers to enable importers to remit $14,000,000. The prices of goods rose to some extent, but not sufficiently to cover this increase of cost. On the other hand, the exports have been as follows:

EXPORTS, PORT OF NEW YORK.

		Foreign.			
	Specie.	Free.	Dutiable.	Domestic.	Total.
January	$2,658,374	$27,193	$149,493	$12,053,477	$14,948,437
February	3,776,919	49,066	208,757	10,078,101	14.112.843
March.....	2,471,233	65,388	458,917	8,985,176	11,980,714
April.....	4,037,675	56,350	607,678	8,002,094	12,703,797
May..... ...	5,164,536	76,971	752,797	9,837,693	15,842,097
June	9,867,614	43,358	372,561	10,048,832	20,332,375
July.....	8,067,337	1,117,193	449,948	14,050,437	23,684,915
August.....	3,713,532	417,100	256,680	13,046,389	17,833,701
September.....	3,085,919	572,572	667,987	14,734,993	19,061,471
Total, 9 months.	$42,843,139	2,520,616	$3,829,403	$100,837,192	$150,030,350
" 1861.....	3,279,814	1,976,632	4,140,079	90,560,488	99,956,963

The exports are apparently large, but the valuation of these articles are the paper market prices, and are therefore more than their actual values abroad by the rate of exchange. Thus, the domestic produce exported in September was $14,734,993, against $9,877,000 same month last year; but this year the exchange, which represents the paper inflation, was twenty-five per cent more than last year, hence the actual sum to be realized from the export is $11,334,993, or $7,000,000 less than the amount of goods to be paid for there. Thus, although the returns show imports $18,000,000 and exports $19,000,000, or what is called $1,000,000 in favor of the country, the actual state of affairs is—imports $18,000,000 and exports $14,500,000, or $3,500,000 adverse balance. It is not, therefore, a matter of surprise that the outflow of gold continues, even independently of the sums to be remitted on account of the amount of stocks sent here to sell. The course of exchange runs as follows:

RATES OF EXCHANGE.

	London.	Paris.	Amsterdam.	Frankfort.	Hamburg.	Berlin.
Dec. 1,	109 a 109¼	5.25 a 5.15	40⅝ a 40¾	41 a 41⅛	35⅝ a 36	73¾ a 74
" 15,	110¼ a 110⅝	5.15 a 5.10	41⅛ a 41⅜	41⅜ a 42	36⅜ a 37	74 a 74¼
Jan. 1,	110¼ a 113	5.12½ a 5.05	42 a 42½	42½ a 43	37¼ a 38	74¼ a 75
" 15,	113½ a 114	5 05 a 4.90	42½ a 43¼	43¼ a 43⅝	37½ a 38¼	75½ a 76½
Feb. 1,	113 a 113½	5.10 a 4 95	42½ a 43¼	43¼ a 43¼	37 a 38¼	75¼ a 76
" 15,	115 a 115½	4 97½ a 4.90	42⅝ a 43¼	43⅜ a 44	37⅝ a 38¼	76½ a 77
Mar 1,	112 a 113	5.05 a 5.00	42½ a 43	42⅝ a 43	37 a 37⅝	75½ a 75⅝
" 15,	112½ a 112½	5.07½ a 5.03¾	42½ a 43	42½ a 43⅜	36⅝ a 37⅜	74⅜ a 75
" 22,	111 a 112½	5.08⅜ a 5.00⅝	42 a 42½	42½ a 42⅝	36⅜ a 37½	74 a 74½
" 29,	111 a 112	5.10 a 5.05	42 a 42½	42½ a 42⅞	36⅜ a 37½	74 a 74½
Apr. 5,	111½ a 112½	5.07½ a 5.02½	42½ a 42⅝	42½ a 42⅝	36⅞ a 37½	74½ a 75
" 12,	111⅝ a 112½	5.10 a 5.03½	42 a 42½	42½ a 42⅝	36⅝ a 37½	74½ a 74⅝
" 19,	111⅞ a 112½	5.10 a 5.03⅝	41⅝ a 42½	42½ a 42⅝	36⅝ a 37½	74 a 74½
" 26,	111½ a 112½	5.02½ a 5.07½	42½ a 42½	42½ a 42⅝	36⅝ a 37⅝	74½ a 74⅝
May 2,	112½ a 118½	4 97½ a 5.02½	42½ a 42⅝	42⅝ a 47⅝	37 a 37½	74½ a 74⅝
" 10,	113 a 114	4.91½ a 5.02½	42½ a 43	42⅝ a 43½	37½ a 37½	75 a 75½
" 17,	113 a 114	4.96½ a 5.00	42⅝ a 43	42⅞ a 43½	37⅝ a 38	75 a 75⅝
" 24,	114½ a 115	4.92½ a 5 00	42⅝ a 43	43 a 43½	37½ a 38	75½ a 75½
" 31,	114 a 114⅝	4.95½ a 4.91½	42⅞ a 43½	43½ a 43½	37½ a 38½	75⅝ a 76
June 7,	114 a 115	4 95 a 4.91	43 a 43½	43½ a 43½	37⅞ a 38½	75⅝ a 76
" 14,	117½ a 118	4 75 a 4.82	43⅝ a 44½	44½ a 45	39 a 39½	76⅝ a 77½
" 26,	120½ a 121	4.70 a 4.66	44½ a 45	45 a 45½	40 a 40½	78 a 78⅝
July 5,	120 a 122	4.70 a 4.62½	55½ a 45½	45 a 45½	45 a 45½	79 a 79½
" 12,	127 a 129	4.33½ a 4.31½	48 a 49	48 a 49	42½ a 43½	84½ a 85½
" 19,	128½ a 131	4.37½ a 4.32½	48½ a 49	48½ a 49	43 a 44	86½ a 87½
" 27,	126 a 129	4.45 a 4.35	47½ a 48½	48 a 48½	41½ a 42½	85½ a 86½
Aug. 2,	125 a 127	4.52 a 4.55	47⅝ a 48½	47⅝ a 48½	41⅝ a 42	82 a 83
" 9,	124 a 126	4 55 a 4.47½	47 a 47½	47½ a 47½	41 a 42	82 a 82½
" 16,	126½ a 127½	4.45 a 4.40	47½ a 47⅝	47½ a 48	42 a 42½	83 a 83½
" 23,	126⅛ a 128	4.45 a 4.40	47½ a 47⅝	47½ a 48	41⅞ a 41½	82½ a 83½
" 30,	126⅝ a 127⅝	4.45 a 4.40	47½ a 47⅝	47½ a 48	42 a 42½	83½ a 84
Sept. 6,	128⅛ a 130	4.36½ a 4.32½	48½ a 49	48⅝ a 49½	42½ a 43	85 a 85½
" 13,	126½ a 131	4.36½ a 4.30	48⅝ a 49½	49 a 49½	42½ a 43½	85⅝ a 86½
" 20,	128½ a 129½	4.42 a 4.35	48½ a 48⅝	48½ a 48⅝	42½ a 42⅝	85 a 85½
" 27,	128½ a 129½	4 40 a 4.32	48½ a 49	48⅝ a 49	42½ a 43	85½ a 86
Oct. 4,	134½ a 135½	4.20 a 4.15	50½ a 51⅝	50½ a 51	44½ a 45	88 a 89
" 11,	137½ a 142½	4.12 a 4.00	51⅝ a 53	52½ a 53½	46 a 47	92 a 94
" 18,	148 a 152	4 90 a 3.90	53 a 52	52 a 53	46 a 47	91 a 93
" 25,	143 a 145½	3.90 a 3.85	54½ a 55	54½ a 55	48 a 47½	95½ a 96½

In the three weeks ending with October 18, bills rose twenty per cent, or rather faster than the price of gold, showing that the demand for remittance was active, and also that the bankers drew with great reluctance,

in the uncertain state of the gold market. With the rise of bills produce also advanced rapidly, because the choice of remittance lay between gold and grain or provision. The state of the harvests abroad is now ascertained to be such that, with the large stocks of grain on hand, the wants of England will not be large, and therefore prices are falling. The gold movement has been as follows:

SPECIE AND PRICE OF GOLD.

	1861.		1862.			
	Received.	Exported.	Received.	Exported.	Gold in bank.	Price of gold.
Jan. 4...	.....	.....	.....	$442,147	$23,983,878	2 a 4 prem.
" 11...	$1,445,385	.....	$885,923	1,035,025	25,373,070	4 a 5 "
" 18...	1,446,219	.....	.....	547,703	26,120,859	4 a 4½ "
" 25...	1,246,029	$22,855	627,767	322,918	26,698,728	2 a 3⅝ "
Feb. 1...	1,514,154	289,669	.....	310,484	27,479,533	3½ a 3¾ "
" 9...	1,052,313	115,698	854,000	976,235	28,196,666	3½ a 3¾ "
" 15...	1,056,426	117,101	614,146	1,156,154	28,114,148	4 a 4¼ "
" 22...	.....	187,253	759,247	734,512	28,875,992	3 a 3¼ "
March 1..	855,755	176,161	741,109	510,774	29,826,959	2 a 2⅝ "
" 8...	.....	.....	679,075	585,236	30,436,644	1⅝ a 2⅝ "
" 15...	815,524	123,316	677,058	477,335	30,773,050	2 a 1½ "
" 22...	.....	91,161	.....	540,968	32,023,890	1½ a 1¾ "
" 29...	699,597	6,088	490,368	779,564	32,841,862	1½ a 1½ "
April 5...	996,445	628,708	581,292	673,826	33,764,382	1¼ a 1 "
" 12...	1,110,231	323,906	.....	1,505,728	34,594,668	1⅝ a 2¼ "
" 19...	....	328,127	617,279	693,432	34,671,528	2 a 1½ "
" 26...	844,577	1,000	635,546	1,151,300	35,297,944	1½ a 1⅝ "
May 2...	.....	800	410,804	712,275	35,175,828	2⅝ a 3⅜ "
" 9...	868,600	27,695	484,019	1,574,166	32,239,868	3¼ a 3½ "
" 17...	755,102	.....	604,682	1,093,031	30,280,697	3 a 3⅜ "
" 24...	1,913,355	.....	604,682	938,032	30,672,760	3¼ a 3⅜ "
" 31...	2,282,137	500	224,911	881,452	31,897,284	3½ a 3⅝ "
June 7...	1,618,876	650	553,035	1,647,299	31,284,882	3⅝ a 4¼ "
" 14...	617,361	18,976	352,391	1,990,327	31,162,048	4½ a 6¾ "
" 21...	986,143	222,546	612,461	3,156,988	31,047,945	6 a 6½ "
" 28...	.....	2,070	393,212	3,094,101	30,832,626	7 a 9¾ "
July 5...	811,268	2,200	.....	2,647,060	31,790,519	9 a 10 "
" 12...	.....	1,588	641,451	2,424,916	32,098,174	9¾ a 17 "
" 19...	1,244,000	1,750	441,179	1,846,023	31,926,609	17 a 20 "
" 27...	.....	4,000	.....	784,537	33,064,575	16½ a 17 "
Aug. 2...	2,128,240	1,382	Golden Gate lost	748,523	34,022,490	14½ a 16 "
" 9...	.....	....	964,422	890,552	34,611,069	12½ a 13 "
" 16...	941,081	700	.....	700,431	35,301,778	14½ a 15 "
" 23...	1,176,434	1,040	1,089,111	919,825	35,538,486	15 a 15½ "
" 30...	757,629	9,280	.....	1,137,644	35,640,984	16 a 16½ "
Sept. 6...	1,100,693	5,120	807,563	551,097	36,138,928	16½ a 18¾ "
" 13...	....	69,859	.....	1,042,835	37,125,245	19 a 19½ "
" 20...	953,340	11,150	934,415	490,895	37,863,087	17 a 17½ "
" 27...	.....	.....	758,286	996,892	37,592,552	16 a 16½ "
Oct. 4...	937,776	7,100	.....	713,075	38,325,587	22½ a 22¾ "
" 11...	.....	2,011	807,616	2,255,513	39,263,086	23¾ a 24 "
" 18...	1,011,707	3,921	.....	1,714,551	38,759,256	33½ a 37½ "
" 25...	1,026,332	2,006	768,121	2,024,380	37,453,531	27 a 31½ "
Total..	34,206,229	3,263,447	19,639,688	49,967,624	.....	

The receipts of gold from California continue to be small as compared with last year, and naturally so, since gold leaves the scene of paper curreney rather than seeks it. In California the government paper has not been adopted as a currency. Gold continues to be the medium, and the government paper is quoted at a discount, greater or less proportioned

to the supply that there is upon the market. The export of the gold has been renewed in October with much vigor, on account of the increased imports of goods and the diminished value of the national exports in the foreign markets to be drawn against. In other words, the balance to be drawn against has been much diminished. By an inspection of the above specie tables, it will be observed that while the exports of specie have been large since April 1, when the issues of paper began, that the amount of specie in bank has, notwithstanding, constantly increased up to October 11, when these institutions held $9,000,000 more than on the 17th May. The rise in the price of gold in New York drained thither all that was available in the interior, and it accumulated in the banks. In the last two weeks the amount declined for the first time $2,000,000—an indication that the interior supply is exhausted. Hence the more rapid rise in the price, which, in the week ending October 18, produced a sort of panic, and induced the Secretary of the Treasury to send an agent to the Board of Brokers to request them not to deal in gold, on the pretence that those dealing helped the rise. The brokers had the weakness to comply with the Secretary request, thus endorsing the folly of the department. The price of gold and gold notes used for the payment of duties has, as compared with the price of government securities, been as follows since the issues of paper commenced:

PRICES UNITED STATES PAPER.

		6's, 1861. Reg.	6's, 1861. Coup.	5's, 1874.	7 3-10, 3 years.	6 p. c. certif. 1 year.	Gold.	August demand notes.
August	2.....	98¼	98¼	85¼	102¼	98¼	15	5¼
"	9.....	99	100	85¼	103⅛	100	12½	5⅛
"	16.....	100⅛	100⅞	90	100	100	15	7⅛
"	23.....	101	101	90	104	99⅝	15½	8
"	30.....	101½	101½	90	104½	100	16½	8½
Sept.	6.. ...	99⅝	99⅝	88½	103½	99	18⅝	8
"	13.....	99⅝	99⅝	88½	103	98½	19½	8⅝
"	20.....	102	102	90	104½	99	17	12½
"	26.....	101½	101⅝	90½	104½	99⅝	20⅝	16½
October	4.....	104½	104½	94	105½	94	19½	22⅝
"	11.....	104	104	92½	105	99½	27½	23⅝
"	18.....	104	104	92½	106	99½	32	29
"	25.....	103	103	93	105	99	31	27

The amount of gold and gold notes, which are the medium for the payment of duties and remittance at present, has been much reduced in the period here embraced. The number of notes emitted and receivable for duties was $60,000,000, and the amount of gold in banks and otherwise available for duties was, in March last, supposed to be $100,000,000. This stock of "customs currency" was then as follows:

Demand notes.....		$60,000,000	
Gold.....		100,000,000	
			$160,000,000
Notes since paid for duties.	$47,000,000		
Gold sent South for cotton	10,000,000		
Gold not exported.....	27,000,000		
			84,000,000
Present supply for duties.....			$76,000,000

The stock has thus been reduced than one half. The amount of notes outstanding is about $15,000,000, and is absorbed at the rate of $1,000,000 per week, while the gold has left the country in the last six months at the same rate. At the same time a large proportion of the $50,000,000 now held by the banks is owned by speculators. By the first of January the notes will probably all be drawn in and the stock of gold be diminished $15,000,000 by export, when, in addition to the present demand of $1,000,000 per week for export, there will be an imperceptible daily demand for $200,000 from the importers with which to pay duties. In other words, $2,000,000 per week in gold will be required to be supplied from the diminished stock held by speculators, or those who prefer gold to paper. It follows that the importers being "cornered," there is no limit to the premium they may be compelled to pay if Congress persists in two currencies—one for the people, paper, and another, gold, for government duties and interest. It is said that the government pays out the gold again; but that does not help the market—it only benefits the stock holder, who, receiving it for interest, sells it for the premium to the brokers or to the government to pay its dividends. The government is itself the most powerful agent in causing a rise in the price of gold as measured in its own depreciated promises.

In our last number we mentioned that the Treasury department, in order to supply itself with gold to pay the accruing interest, had received gold on deposit, to be returned in gold, and allowing four per cent interest. The effect of this was to make the gold lodged with the banks a source of profit to them, and they were more disposed to lend on gold at lower margins. Some of them, it is said, loaned as high as 125 per cent. They could thus, by lending on the gold, get seven per cent for their notes and then lend the gold to the government at four per cent, make eleven per cent for the use of inconvertible promises, and the government be responsible for the returnof the gold. It was hardly a matter of surprise that a gold speculation should, under such circumstances, have been added to the national appreciation of the metal for paper; nor that those banks which held largely of the "demand gold notes," which rose step by step with gold, should encourage the movement until they had disposed of those notes, and perhaps their gold to speculators, at very large profits. It was reported that one bank held $1,200,000 of those notes, and realized $300,000 profit on this movement. Its stock sells very high in the market. With the culmination of this movement a reaction was to be looked for, and gold, which had risen twenty per cent in three weeks, fell back nearer to its actual value as measured in the depreciation of government issues. The depreciation apparent in the above table is as follows:

	In paper.	In gold.	Price of gold.
Price U. S. six per cent, May 17....	105	102	103
" " Oct. 18....	104½	77	130

Thus the price of the stock interest payable in gold fell twenty-five per cent. A person living in England may, to-day, buy them at a rate which gives him eight per cent in gold; but, under the circumstances, they are no temptation. The one-year certificates of the government pay six per cent in gold, which gives the holder here nine per cent interest, yet they are at a discount even for paper. The rise in prices really indicates the dissipation of the national capital, which has been devoted to

the war to the exclusion of other employments. With the return of peace capital, never superabundant in this country for the employment of industry, will be dearer than ever, and few persons will be able to let it lie in government securities. For the same reason the government will be compelled to follow for a time the dangerous path of paper money on which it has entered, and its currency will be more depreciated than ever as compared with gold. The gold which it received on deposit in September, with the obligation to return it at a future time, was worth seventeen per cent in the market. It subsequently rose to thirty-eight per cent, involving a loss to the government of $800,000 on $4,000,000 so borrowed. Certainly this was a very dear mode of borrowing.

The taxes when paid in paper will be found sufficiently vexatious to a people unused to taxes, and if demanded in gold will become still more irksome. That the depreciation of the paper is now no greater than it is, is due partly to the fact that the mechanical difficulties in the way of issuing it are so great that the government cannot meet the demands upon it. The loudest complaints in relation to the arrearages of the army are made in many quarters, and although Congress has now been adjourned three months the public have not been able to obtain the small currency in any adequate amounts as substitutes for "postage stamps," which have afforded a miserable shift, in place of the silver coin they helped to drive out. On the days on which the small currency is doled out to the public the neighborhood of the Assistant Treasury in all the cities is thronged to procure some of the paper change—a fact which indicates the severity of the distress which the public undergoes. It is to be borne in mind that although the Treasury is authorized to issue $300,000,000 of paper demand notes, there is no limit on the amount of paper fractions of the dollar that may be put afloat, nor is there any limit on the amount of one-year certificates, bearing six per cent payable in gold, that may be uttered. There was authorized $500,000,000 of 5-20 stock in which to fund them, but there was no limit made to the amount that might be issued. Hence the continued low price, even in paper, of those certificates, of which some $80,000,000 are outstanding.

The resources of the government that may be developed by the operation of the new tax law are not yet very manifest, and there seems to be less confidence in its effectiveness than when it was issued. The state of the market for capital is such that it is very apparent that the government cannot retrace it steps in regard to paper, since it would have but two alternatives, viz: to collect the whole of its revenue within the year in gold, to meet an expenditure of $1,000,000,000 per annum—a manifest impossibility. Its six per cent stocks are now twenty-three per cent discount for paper, and to come into the market now to borrow large amounts in gold would be equally impossible. There remains, then, to collect a nominal revenue in paper, which will involve prompt action on the part of the coming Congress to authorize the reissue of the notes after December, and probably to extend the amount.

The last official statement of the expenditure was for the quarter ending June 30, 1862, or the first quarter after the issue of the paper money. It will show the progress of expenditure, and the mode of raising the means:

RECEIPTS.

From customs	$18,930,000
Direct tax	1,795,000
Sales of public lands	49,000
Miscellaneous	259,000
Three years bonds at 7 3-10th per cent	13,825,000
Five-twenty years' bonds, act of Feb. 25, 1862	13,990,000
Stock for Washington and Oregon War debt	198,000
U. S. notes per act of July 17 and August 5, 1861	30,000
U. S. notes per act of Feb. 25, 1862	98,000,000
Certificates of indebtedness, acts 1st and 17th August, 1861	44,252,000
Temporary loans, act of Feb. 25, 1862	46,187,000
Total	$238,000,000

EXPENDITURES.

Civil, foreign intercourse, and miscellaneous	$6,028,000
Interior—Pensions and Indians	700,026
War	160,034,000
Navy	14,800,018
Interest on public debt, including Treasury notes	3,969,000
Pay of Treasury notes issued by act of Dec. 3, 1857	101,000
Pay of Treasury notes issued by act of March 2, 1861	792,000
Redemption of United States notes, issued by act of July 17, 1861.	580,000
Reimbursement of temporary loan, acts Feb. 25, and March 17, 1862	7,137,000
Deduct excess of repayments above expenses for pay of Treasury notes, per act of December 17, 1860	33,000
Total	$194,000,000

The customs were, very large, it will be observed, and there was raised $1,795,000 from the direct tax. The whole amount of means raised was $238,000,000 for the quarter; of this $46,187,000 was deposits received at the Treasury at five per cent, $98,000,000 was from paper money issues, $13,825,000 from 7.30 bonds paid out, $44,252,000 from one-year certificates paid out mostly at a discount, and only $13,990,000 from conversions of the paper money into 5–20 bonds. Of this amouut, $11,291,000 was in the month of June, when stocks had risen. There was, it appears, no direct borrowing on the part of the government, which could with difficulty float its six per cent year bonds, although gold rose during the quarter from 1½ to 9 per cent premium. The expenditure for the quarter was, it appears, apart from the debt, $182,000,000, or at the rate of $728,000,000 per annum before the rise in prices and before the call for 600,000 men. The War Department cost $160,000,000, or just double what it cost in the quarter ending Dec. 31, 1861, and $100,000,000 more than it cost in the quarter Sept. 30, 1861. The number of men has now doubled and the prices have risen, hence the expenses cannot be less than at the rate of $1,500,000,000 per annum. The expenses for the year to June 1, 1862, increased as follows: Quarter to September 30, 1861, $98,239,733; December 31, 1861, $144,946,133; March 31. 1862, $171,248,180; June 30, 1862, $194,000,000—total, $608,000,000; and the debt reported by the Secretary, July 1, 1862, was $561,901,000, consisting of $150,000,000 of paper money, $60,000,000 year bonds, $55,000,000 deposits due on demand, and the remainder funded debt. The year bonds will be payable in the spring, and thus swell the demands upon the government, at the same time the high rates of gold and exchange diminish the imports and will affect duties. Under these circumstances, the financial question will be a very grave one for the whole community on the meeting of Congress.

STATISTICS OF TRADE AND COMMERCE.

1. Trade of Cincinnati. 2. The Coffee Trade of Brazil. 3. Cotton, Tobacco, and Sugar Trade in New Orleans. 4. The Hop Trade. 5. Salt Trade of Poland. 6. Successful Rice Growing in the Hawaiian Islands.

TRADE OF CINCINNATI.

The following, which we have prepared from tables in the Cincinnati *Price Current*, show the trade of Cincinnati for the years ending August 31, 1861 and 1862:

VALUE OF PRINCIPAL IMPORTS.

Articles.	1862.	1861.
Apples, green	$19,606	$152,576
Ale, Beer, and Porter	21,444	22,207
Buffalo Robes	106,782	135 641
Beef	14,126	20,437
Bagging	19,455	2,924
Barley	178,136	300,317
Beans	78,520	25,304
Butter	233,569	537,875
Brooms	27,020	33,300
Boots and Shoes	1,048,649	1,453,005
Bran, Middlings, etc	113,464	114,819
Crockeryware, etc	83,700	162,050
Candles	54,924	21,870
Corn	529,576	455,834
Corn Meal	3,356	3,324
Cider	3,715	9,695
Cheese	250,666	431,002
Cotton	4,750,720	7,137,390
Coffee	3,744,904	3,374,343
Codfish	20,580	72,128
Cooperage	142,762	121,169
Cattle	2,160,528	2,475,685
Cement and Plaster	26,100	30,800
Eggs	105,858	235,790
Flour	2,490,039	2,256,847
Feathers	194,880	167,220
Fish, sundries	125,617	214,391
Fruits, dried	159,605	114,605
Grease	246,312	121,712
Glass	73,932	93,866
Glassware	149,067	158,195
Hemp	550,600	148,900
Hides	631,445	763,135
Hardware	1,240,470	732,620
Hay	157,113	91,556
Herrings	17,338	3,028

Articles.	Value.	
	1862.	1861.
Hogs	3,643,212	6,396,672
Hops	77,740	70,080
Horses	5,174,520	1,234,700
Iron and Steel	815,492	937,606
Iron—Pig	663,656	590,800
Lead	234,156	297,229
Lard	1,976,008	1,169,189
Leather	472,396	296,820
Lemons	55,860	14,864
Lime	44,200	72,429
Liquors	148,010	221,400
Merchandise and Sundries	37,415,000	34,230,000
Merchandise	6,555,880	3,174,400
Molasses	349,840	860,376
Malt	76,548	56,122
Nails	411,186	398,316
Oils	480,500	870,980
Oranges	53,948	51,636
Oakum	66,024	34,336
Oats	401,685	226,381
Oil Cake	1,375	13,560
Onions	6,533	15,838
Pork and Bacon	2,452,740	2,616,783
Potatoes	137,187	127,292
Pitch	2,061	1,751
Pimento, Pepper, etc	55,200	37,008
Rye	98,874	78,754
Rosin	6,525	19,140
Raisins and Figs	35,137	67,607
Rope, Twine, etc	76,968	79,056
Rice	408,870	148,995
Sugar	3,993,445	3,559,270
Seed—Flax	62,601	63,617
" Grass and Clover	136,542	242,749
" Hemp	6,540	4,299
Salt	529,557	247,594
Shot	72,696	47,120
Starch	119,516	56,540
Sheep	54,906	49,592
Stearine	24,224	18,853
Tea	886,745	672,375
Tobacco	7,169,288	2,372,690
Tallow	175,230	145,640
Tar	9,120	11,388
Turpentine	51,090	89,320
Wines	247,350	204,562
Wheat	1,770,434	1,129,007
Wool	208,746	119,680
Whisky	3,437,088	2,233,313
Yarns—Cotton	8,040	23,546
Oil—Coal	127,812	.....

Articles.	Value. 1862.	1861.
Oil—Petroleum	39,463	.....
Lumber	687,500	800,000
Coal	480,000	882,000
Shingles	87,500	93,000
Coopers' stuff, wood and stone	521,000	525,000
Total	103,292,893	90,198,136

VALUE OF PRINCIPAL EXPORTS.

Articles.	1862.	1861.
Apples, green	$52,245	$78,206
Alcohol	944,280	651,915
Ale, Beer, and Porter	79,480	80,640
Buffalo Robes	100,940	151,330
Beef	320,013	184,684
Bagging	2,605	2,540
Barley	31,539	41,255
Beans	76,776	28,377
Brooms	13,932	29,035
Butter	66,155	283,957
Bran, Shorts, etc	36,481	51,994
Boots and Shoes	260,211	516,107
Crockeryware, etc	34,788	66,606
Chairs	86,144	130,416
Candles	1,598,980	829,404
Corn	135,504	139,993
Corn Meal	5,214	4,323
Cheese	59,528	155,019
Cotton	4,317,600	6,874,075
Coffee	3,528,256	2,294,502
Cooperage	227,874	121,370
Cattle	1,361,086	1,171,098
Cement and Plaster	7,274	7,100
Eggs	44,051	100,690
Flour	1,879,141	2,026,468
Feathers	294,960	218,348
Fish, sundry	80,515	97,691
Fruit, dried	94,262	50,052
Furniture	507,964	3,372,106
Grease	124,832	40,562
Glass	23,740	31,551
Glassware	25,080	18,515
Hemp	434,160	6[illegible],625
Hides	608,857	648,050
Hardware	102,760	312,900
Hay	105,834	28,604
Hogs	60,550	228,[illegible]88
Hops	19,180	29,240
Horses	5,783,280	1,395,900
Iron and Steel	1,274,252	1,262,971

Articles.	Value.	
	1862.	1861.
Lard	2,033,528	2,450,947
Leather	548,298	411,468
Lime	3,597	5,199
Molasses	456,944	673,088
Malt	93,789	124,693
Nails	238,824	272,244
Oil	1,929,345	1,883,105
Oats	135,255	40,193
Oil Cake	16,150	44,975
Onions	3,393	10,745
Pork and Bacon	5,218,250	6,700,187
Potatoes	13,882	88,871
Rye	37,774	33,156
Rope, Twine, etc	56,712	90,975
Sugar	2,643,930	2,343,510
Seed—Flax	7,409	2,484
" Grass and Clover	66,948	195,975
Soap	341,061	209,508
Salt	256,712	160,027
Starch	166,875	93,130
Sheep	14,866	13,200
Stearine	99,314	89,080
Sundry—Merchandise	23,372,840	20,904,640
" Liquors	744,380	296,370
" Manufactures	167,005	69,652
Spices	11,407	6,820
Tobacco	7,321,890	2,434,296
Tallow	257,920	148,680
Vinegar	43,228	30,240
Wines	361,836	48,204
Wheat	1,102,564	525,065
Wool	264,925	159,453
Whisky	1,906,528	1,813,143
White Lead	97,231	102,942
Castings	134,882	543,482
Total	$76,449,862	$67,023,126

THE COFFEE TRADE OF BRAZIL.

A correspondent of the *Journal of Commerce*, under date Rio de Janeiro, September 8, 1862, gives a very interesting account of the coffee trade of Brazil. He says:

I have recently been led, by higher duties, amidst the coffee plantations of Brazil, and have recorded some of my observations, a few of which may not be out of place at this time, when the question is beginning to be raised, "Where shall the world obtain its future supply of coffee?" I do not intend to trace its history from its mountain home in Abyssinia, neither its first naturalization in Arabia and Persia, nor its second transfer,

which made it in 1699 one of the rarities of Batavia, whence it traveled to conservatories of kings in Europe. I shall only hint at its introduction into the new world, before giving an account of its statistics, culture, and prospects in Brazil. The statistics will be valuable for future reference.

In 1710 the grand Louis of France received from the botanical gardens of Amsterdam a small coffee plant, the child of those trees which in eleven years had begun to flourish so well at Batavia. Louis XIV gave the little stranger a passing notice and then ordered it to be placed in the Jardin des Plantes, not imagining the great destiny which awaited the diminutive exotic. Several attempts were made to convey slips from this plant to the French West Indies. In 1720 the attempt was successful, for in that year ANTOINE DE JUSSIEU, the great naturalist, confided to a Captain DECLIEUX three plants, which it was hoped would not share the fate of previous lots. Two of the plants died, and the survivor owed its existence to the self-sacrificing captain, who, when short of water, divided his ration with the coffee tree. It reached Martinique, thrived, and became the parent of the coffee plantations in the West Indies, and in the Spanish main.

There is some uncertainty as to the means by which the coffee plant was introduced into Brazil. Some say that a few plants were given to the Portuguese Viceroy by a Dutch admiral who was on his way from Java to Holland, and stopped to refresh at Rio de Janeiro. Others believe that the vast plantations of this Empire had their origin in De Jussieu's little plant sent to Martinique; others that it went from Java to Surinam, from Surinam to Cayenne, and from Cayenne to Para, on the Amazon. However this may be, there is no uncertainty as to whom belongs the honor of planting the first coffee tree in Brazil. A Franciscan friar named VILLOSO in 1754 placed a small tree in the garden of the San Antonio Convent in the city of Rio de Janeiro. While trees were planted here and there on almost every plantation devoted to sugar, corn, mandioca, etc., etc., there was no definite culture, there was no one who made it a *specialty*. It was cultivated in quantities only sufficient to furnish the family with coffee, and early travelers to Brazil in this century spoke of the coffee tree as holding a very insignificant place on the plantations. HENRY MARTYN, the lamented missionary to Persia, who touched at Bahia on his way to the East Indies in 1805, gives account of pepper plantations, but only incidentally mentions coffee as a tree planted occasionally, but not for producing a large article of export. It was near the beginning of this century that a Mr. LESCENE, owing to the troubles in Hayti, came to Brazil, and he was the first person to engage seriously in the culture of a staple which to-day far surpasses every other in this Empire. In 1808 the *Carta Regia* of Don John VI threw open the ports of Brazil to the commerce of the world. Coffee production had increased so that in 1808 30,000 sacks (160 pounds each) of the coveted beverage berry were exported to the rest of the world. Previous to 1825, Java, Cuba, and the English colonies in the East and West Indies were the principal producers of coffee. Since that time Brazil has distanced them all. For a number of years she has produced for exportation nearly half the coffee of the world, and some years she even exported *more* than half. I have made, with considerable trouble and care, the following comparisons and calculations from Brazilian State papers, and for the last three years from

Messrs. MAXWELL, WRIGHT & Co's. circular. The "crop year" differs but little from the Brazilian financial year, and extends from the 1st of July to the 30th of June following. A single glance will show what a contrast there is between 1809, when 30,000 bags were exported, and 1854–55 (the most productive year recorded) when 2,605,424 were sent to the four quarters of the globe. The millreis may be estimated at 54 cents, though it has been, on account of difference of exchange, much higher:

THE ANNUAL AVERAGE EXPORTATIONS FOR PERIODS OF THREE YEARS.

1840-41-42-43.....	1,101,473 bags, which sold at Rio for 17,804,000 milreis.
1843-44-45-46.....	1,245,855 bags, which sold at Rio for 18,933,600 milreis.
1846-47-48-49.....	1,860,393 bags, which sold at Rio for 22,881,000 milreis.
1849-50-51-52.....	1,708,593 bags, which sold at Rio for 29,465,300 milreis.
1852-53-54-55.....	2,109,969 bags, which sold at Rio for 39,277,300 milreis.
1855-56-57-58.....	2,293,145 bags, which sold at Rio for 43,540,600 milreis.
1858-59-60-61.....	2,245,479 bags.
1861-62.....	1,633,114 bags.

The year 1860 was a very prosperous year, the exportation being no less than 2,557,179 bags, while in 1861–62 the coffee disease became fully apparent, when the exportation fell off, in a single twelvemonth, to 1,633,114, or in other words, fully one-third. I shall again refer to this disease, which has been so disastrous upon the chief production of this empire.

It will be observed in the above column of figures how the price of coffee became enhanced between 1846 and 1852—*i. e.* the annual average for the first three years was 22,881,000 milreis for the annual average crop of 1,860,393 bags, against 28,465,300 milreis for a smaller annual crop of 1,708,593 bags. This contrast is still more striking when we compare particular years. The crop exported in the year 1848–49 consisted of 1,720,006 bags, which sold for 21,513,000 milreis. The exportation of the year 1853–54, was 1,739,607 bags, which brought 35,444,000 milreis. The crop of 1861–62 is the smallest since 1845–46. The five largest exportations were in the following years:

1850–51.....	sacks	2,029,653
1854–55.....		2,605,424
1855–56.....		2,330,361
1856–57.....		2,605,239
1858–59.....		2,422,000
1860–61.....		2,557,179

The African slave trade was effectually put down in 1850. The price of slaves increased and the number of slaves decreased most perceptibly from 1851 to 1852. But taking the annual average of nine years after 1852, and comparing them with the annual average of the nine years after 1842–43, we find the increase in production between 25 and 30 per cent. It is believed that slavery has decreased throughout the Empire 30 per cent, and in the coffee region perhaps half that rate, yet we see the main staple of Brazil really increasing, so that the crop of 1860–61 lacks little less than 50,000 sacks of being the largest ever gathered. Fears had been entertained that Brazil would lose her supremacy, and indeed effectiveness as a coffee growing country, when the African slave trade was put down; but the above facts and figures demonstrate the contrary. The exportations of 1858–59 were large from every coffee producing country,

and in order to show the position which Brazil maintains I give the following tables, which are of value to the general reader, and are worth filing by those engaged in this commerce. In the crop year of 1858–59 there was produced in:

Brazil.....sacks	2,422,000	English possessions other than Ceylon.	35,000
Java.....	915,000	Manilla.....	21,000
Ceylon.....	490,000	French, Dutch, and other possessions in the West Indies and South America....	14,000
Hayti.....	350,000		
Cuba and Porto Rico	140,000		
Sumatra.....	140,000		
Venezuela	140,000		
Costa Rica.....	70,000		
Singapore and Malaca	70,000	Total.....	4,872,000
Mocha.....	35,000		

The consumption in non-producing countries during the same year was greater than the importation, doubtless owing to large stocks on hand. The next table will show that if Brazil is the first producer, the United States (in time of peace) is the greatest consumer. In 1858–59 the consumption of coffee was as follows:

The United States.....sacks	1,575,000
Prussia, Hamburg, and British portions of Germany.....	840,000
Austria and the remainder of Germany.....	525,000
Belgium and Holland.....	665,000
Italy, Spain, Portugal, Turkey, and Switzerland.....	525,000
France.....	420,000
Denmark, Sweden, Norway, and Russia.....	350,000
England.....	280,000
Australia and other parts of the world.....	140,000
Total.....	5,320,000

Sadly instructive are the figures for 1861–62 in Messrs. MAXWELL & WRIGHT's last circular, which exhibits the exportation to Europe and the United States during the last three years.

EXPORTED FROM RIO DE JANEIRO.

	1859–60.	1860–61.	1861–62.
	Sacks of coffee.		
To the United States.....	832,042	1,204,936	509,646
To Europe	869,811	1,309,280	1,072,792

According to the just proportion, the United States should have imported at least 900,000 bags during this year, but the troubles of our country have caused an extraordinary falling off. This is more perceptible in the bags sent to our chief ports. New York imported from Rio de Janeiro in 1860–61, 446,145 sacks; in 1861–62, 181,704 sacks; Baltimore in 1860–61, 203,231 sacks; 1861–62, 47,454 sacks; New Orleans, 1860–61, 285,079 sacks; 1861–62, 6,185 sacks.

The most remarkable "ports in the United States" (I quote from the circular) are the following, to which were exported the number of sacks opposite their names: Brazil, 9,000; Havana, 51,550; St. Thomas, 84,705; Matamoras, 6,952.

COTTON, TOBACCO, AND SUGAR TRADE IN NEW ORLEANS.

The New Orleans *Price Current* of September 1, contains a statement of the business of New Orleans for the fiscal year ending September 1, from which we take the following:

STOCK OF COTTON, 20TH AUGUST, 1862.

Southern press.....bales	1	....
Sundry pickeries.....	225	226
ON SHIPBOARD.		
Ship Undaunted.....		126
Stock on hand August 20.....		352

STATEMENT OF COTTON, AUGUST 20TH, 1862.

Stock on hand September 1, 1861.....bales		10,118
Arrived since April 25th.....	4,056	
Arrived previously	34,974	38,730
Additional bales made from waste and damaged cotton, samples, &c.....		1,000
Total.....		49,848
Exported since April 25.....	5,725	
Exported previously	14,873	
Supposed to have been shipped which we have no record of	6,698	27,296
Burnt in presses and on shipboard April 24, about.....	22,200	49,496
Stock on hand and on shipboard, August 20.....		352

STATEMENT OF TOBACCO, AUGUST 20, 1862.

Stock on hand September, 1861.....hogsheads		15,121
Arrived previously.....	1,063	1,063
Total.....		16,184
Exported since April 25.....	2,037	
Exported previously.....	2,037	
Broken up for baling, city consumption, &c.....	1,249	3,286
Stock on hand and on shipboard August 20.....		12,898

The statistics of the sugar crop of Louisiana are as follows:

The actual yield is estimated to have comprised 459,410 hogsheads, averaging 1,150 pounds, and making an aggregate weight of 528,321,500 pounds. This embraced 389,264 hogsheads of brown sugar, made by the old process, and 70,146 refined, clarified, &c., including cistern bottoms, the whole being the product of 1,291 sugar houses, of which 1,027 were worked by steam and 264 by horse power. The crop of the preceding year amounted to 228,753 hogsheads, weighing 263,065,000 pounds,

showing an increase for the last year of 230,657 hogsheads, or 265,266,500 pounds.

According to our calculations the price of the entire crop has averaged 4¼ against 5½ c. last year. At this average, and taking the estimate of of 1,150 pounds to the hogshead, the aggregate value of the crop of 459,410 hogsheads is $25,095,271 against $14,468,627, the product of 228,753 hogsheads last year; or an increase of $10,626,644. The receipts at the levee since the 1st of September have been 225,356 hogsheads and 7,907 tierces and barrels, against 174,637 hogsheads and 5,976 tierces and barrels last year.

The stock now on hand in this State is estimated at 170,000 hogsheads.

The yield of molasses from the last year's cane crop is estimated at seventy gallons for each 1,000 pounds of sugar, against the same for the previous year, or an aggregate of 36,982,505 gallons against 18,414,550 the year previous, showing an increase of 18,567,955 gallons, or more than as much again. The arrivals at the levee during the season have been 401,404 barrels against 313,260 last year, showing an increase of 88,944 barrels.

The total value of the product, estimated at an average of 18⅛ cents per gallon, sums up $6,703,079 against $4,235,346 last year, showing an increase of $2,467,733.

We have prepared the following tables which will be found of interest in connection with the above:

TOTAL COTTON CROP IN THE UNITED STATES FROM 1825 TO 1861.

	Bales.		Bales.		Bales.
1860–1....	3,656,086	1848–9....	2,728,596	1836–7....	1,422,930
1859–60...	4,669,770	1847–8....	2,347,634	1835–6....	1,360,725
1858–9....	3,851,481	1846.7....	1,778,651	1834–5....	1,254,328
1857–8....	3,113,962	1845–6....	2,100,537	1833–4....	1,205,394
1856–7....	2,939,519	1844–5....	2,394,503	1832–3....	1,070,438
1855–6....	3,527,845	1843–4....	2,030,409	1831–2....	987,477
1854–5....	2,847,339	1842–3....	2,378,875	1830–1....	1,038,848
1853–4....	2,930,027	1841–2....	1,683,574	1829–30...	976,845
1852–3....	3,262,882	1840–1....	1,634,945	1828–9....	870,415
1851–2....	3,015,029	1839–40...	2,177,835	1827–8....	727,593
1850–1....	2,355,257	1838–9....	1,360,532	1826–7....	957,281
1849–50...	2,096,706	1837–8....	1,801,497	1825–6....	720,027

STATEMENT SHOWING THE AMOUNT CONSUMED IN THE UNITED STATES AND EXPORTED FROM 1847 TO 1861.

	United States.	Foreign export.		United States.	Foreign export.
1847–8..bales	616,044	1,731,590	1854–5..bales	706,412	2,140,927
1848–9.....	642,485	2,086,111	1855–6.....	770,739	2,757,106
1849–50....	613,498	1,483,208	1856–7.....	819,936	2,119,583
1850–1.....	485,614	1,869,643	1857–8.....	595,562	2,518,400
1851–2.....	699,603	2,315,426	1858–9.....	927,651	2,923,830
1852–3.....	803,725	2,459,157	1859–60.....	972,043	3,677,727
1853–4.....	737,236	2,192,791	1860–1.....	843,740	2,812,346

THE HOP TRADE.

The following in relation to the hop trade is from the trade circular of Messrs. WOOLLOTON & SON:

The 15th of September, 1862, dates the freedom of English hops from excise impost, and the abolition of customs duties upon foreign hops. Time alone can show the effect so serious a change will have on the average prices of a produce of increasing importance throughout the world. Our opinion is, that under perfect freedom of trade hops will vary in price in each district of production, only in proportion to their quality and the cost of transport; and that consumers will find prices more uniformly even than has hitherto been known, since the simultaneous failure in the crop at home and abroad is beyond the range of probability. With regard to the present season we remark, that the unfavorable weather of part of the summer has had its influence upon the English crop. From the Worcester district but a very small produce will be received, and scarcely any of fine quality. Many of the best Mid Kent and a few East Kent parishes have been much affected with mould and red rust. The Farnham crop is but moderate; the Country Farnhams, Weald of Kent, and Sussex plantations, produce a very large crop of fine quality. On the continent of Europe the result is very variable. Bohemia and Bavaria do not grow so many hops as last year, but the quality of their crop is most superior. This circumstance will tend to compensate for the injury which has affected some of our best parishes at home. The other districts of Germany have a very large produce, but it is, as usual, deficient in flavor and strength. It is within the experience of some brewers to have bought these hops at low prices, under the name of Bavarians, and when too late to have discovered the difference. From the western provinces of France, where the crop is very large, we shall receive considerable consignments, of exquisite flavor and condition, cultivated and cured with extreme care. The Belgian crop is not so abundant as last year, but there will be no lack of samples of beautiful color and condition. A few plantations are attacked with mould, a malady hitherto unknown in that country. The American crop is large, and the circumstances of that country will lead to important consignments to England. In no single district of production is there a total failure, and in by far the largest portions of plantations at home and abroad the crop is abundant. In our judgment, therefore, the prices asked for new hops are not at present sufficiently reasonable to induce brewers to go largely into stock.

SALT TRADE OF POLAND.

The salt trade in Poland is a government monopoly, which has existed since the last partition of Poland. Formerly the Duchy of Warsaw received one-half of the income produced by the salt mines at Wielicztia, near Cracow; but these mines having been ceded to Austria, a monopoly of the salt trade of the kingdom was granted to the Polish treasury as a compensation for the revenue abandoned to Austria.

This source of revenue was farmed for some years, and produced on an average, from the year 1816 to 1821, an annual sum of 820,000 roubles.

In the year 1821, the government purchased about 10,000 tons of English salt from the Prussian Government, paying at the rate of 22.10 roubles per ton; and English salt continued to be imported into the king-

dom at the rate of about 3,000 tons per annum, till the year 1834, the price having been reduced to 18.36 roubles per ton. Since that date, the purchase of English salt has entirely ceased, except during the year 1855, when, in consequence of the blockade of the Russian ports, salt was admitted exceptionally into the empire by the Polish frontier.

The Polish treasury, in virtue of a contract with the Austrian Government, which expired in March last, purchased annually from the latter government 650,000 Vienna centners of rock salt, which, including 12 per cent on the weight allowed by the Austrian Government to cover losses, makes, in Polish measure, 2,471,600 poods; the price being 15½ kopecks per pood.

The government salt works within the kingdom, at Ciechocinek, which are now farmed by the Polish Bank, produced, in the year 1860, 319,000 poods of salt, for which the government paid the bank at the rate of 30 kopecks per pood.

The market price of salt, within the kingdom, is 90 kopecks per pood for first quality, and 80 kopecks for inferior, and it is sold exclusively in government depots, and by government officials, the number of depots for the sale being forty. The entire quantity sold during the year 1860 amounted to 2,836,551 poods, the value being 2,503,000 roubles.

In addition to this the imperial treasury paid, in 1860, in accordance with an agreement entered into with the Polish Government in the year 1851, when the Polish customs duties were abandoned, and as compensation for the loss to the treasury on the reduction of the price of salt from the then existing price to the present rate, the sum of 2,199,373 roubles, which, added to the above value of 2,510,000 roubles, makes the total value of 4,709,373 roubles, the receipts of this monopoly.

The expenses of purchase and transport are stated in the Polish budget at 1,953,000 roubles, which, deducted from the above, makes a clear gain to the treasury of 2,746,373 roubles.—*Grocer of London.*

SUCCESSFUL RICE GROWING IN THE HAWAIIAN ISLANDS.

The Honolulu *Commercial Advertiser* says that "Messrs. JUDD and WILDER have just harvested their first crop of rice, and shipped it on board the Comet for San Francisco. Having heard that the yield was very large, we have requested the particulars, from these gentlemen, who have kindly supplied them. Their land is situated at Waiahole on the windward side of Oahu, in the Koolau district, and embraced 83 taro patches, which have been accurately surveyed, showing an area of 15 acres and 802 feet. The yield of this land was carefully weighed as it was put on board the Comet, and turns out 89,200 pounds or 5,935⅗ pounds per acre. Extraordinary as this yield may appear, it would have been much greater had not the grain on five acres been badly beaten down and rotted by a severe rain storm, causing a loss on that tract of about one-half its yield. Had not this casuality occurred, the produce of the 15 acres would have exceeded *one hundred thousand pounds.* There can be no mistake in this statement, and the experience of other rice growers in that vicinity will attest it. We congratulate Messrs. J. and W. on this result of their first attempt in rice growing, and doubt not this new branch of industry will prove, in favorable localities, and under foreign management, the most remunerative crop that can be grown."

RAILWAY, CANAL, AND TELEGRAPH STATISTICS.

1 A Railway through the Pyrenees. 2. The Italian Railway Contract. 3. Tolls on Railroads. 4. Steel for Railway Bars. 5. The New York Canals.

A RAILWAY THROUGH THE PYRENEES.

The successful completion of a Spanish railway across the Pyrenees, and the first which has actually passed over either of the two greatest of the mountainous ranges of Western Europe, may perhaps be deemed of sufficient interest in several respects to deserve a passing notice.

On the 21st of August, 1862, the first railway train, drawn by locomotive engines, crossed the chain of the Cantabrian Pyrenees, over the northern division of the Tudela and Bilbao Railway, from the seaport of Bilbao to the town of Miranda on the Ebro. On the 22d the Minister of Public Works for Spain made his inspection from Miranda to Bilbao, returning on the 23d, the passage across the mountains being made by trains running also in both directions each day. The distance from Bilbao to Miranda is about sixty-six English miles, of which more than forty miles are in ascending from the coast to the summit, which is 2,163 feet above the sea, being the lowest pass in the whole range of the Pyrenees. The northern slopes are almost invariably steep. Here the difficulties to be overcome are concentrated. In the present case they have been surmounted by winding along the shoulders of the mountains, with heavy works of excavation, tunneling, and embankments, until the railway resembles a turnpike road more than such a line as is usually considered should be made to enable a locomotive engine to travel over it with speed and safety, and dragging heavy loads. The average rate of ascent from the sea is 54 feet per mile; the maximum is 76 feet. The predominant curvature has a radius of 300 yards only, and the curves are constantly reverting. There are two points on the line at the entrance of the Concha, or Basin of Ordima (the ancient capital of the province of Biscay,) distant only 600 yards apart measured horizontally across the neck or gorge of the basin, which are distant fully eight and a half miles from each other in travelling along the line, and which differ 456 feet in level. A technical description of the railway would be out of place here, and it would occupy pages to paint in words the grandeur of the mountain scenery, seen as it was seen, in full perfection, under the beautiful sunny sky which beamed over each day's passage of the trains. The changes of view were almost as rapid as the motion of the locomotive engine, owing to the tortuous character of the course, forced upon the engineer by the rugged country traversed. The last glimpse of the northern landscape which the passengers had was over the Gujuli waterfall, and down to a depth of 400 feet to the bottom of the ravine into which it fell; after which the carriages rushed into the summit tunnel to emerge into a wide meadow with a gently falling stream; for the descent on the southern side is very gradual, the average rate from the summit to the Ebro being less than 24 feet to a mile. The valley being

wide the curves are also much easier. The most remarkable point in the descent is the pass or gorge of the Techas, through which flows the river Bazas at the village of Subijana Morillos, where Wellington had his headquarters a night before the battle of Vittoria, in the summer of 1813.

The time occupied by trains between Bilbao and Miranda is two hours and three-quarters. To the powerful locomotives of this railway the sharp reversing curves and steep gradients in ascending from the north to the summit appear to make no difference with trains of seven or eight carriages.

On the occasion of the crossing of the mountains on the 22d of August, there was the usual *cortege* of authorities and officials meeting the Minister of Public Works and the gentlemen of his party. The usual breakfast was set out, but there were no toasts and no speeches. Upon arriving in Bilbao a small steamer took the distinguished group down to the mouth of the river (Nervion) where a good view was obtained of the deep Bay of Bilbao, where it is proposed to construct a breakwater more than a mile in length, within which nearly 1,000 acres of sheltered anchorage will be attainable—in fact, a safety harbor, so much required at the extremity of the Bay of Biscay.

The southern division of the Tudela and Bilbao Railway (which is to be completed by the early part of the year 1863) proceeds eastward from Miranda for nearly ninety miles, always on the right or south bank of the Ebro, for strategic though not for engineering reasons.

The amount expended and to be expended on the 155 miles of the Tudela and Bilbao Railway is about £2,500,000 sterling. The sixty-six miles from Bilbao to Miranda (including twenty miles of the most difficult of railway works known, principally through the Pyrenees) have cost merely for construction more than $1,000,000; the eighty-nine miles along the Ebro have been made for four-fifths of that sum. The rest of the money has been spent on stations, rolling stock, management, &c. The total with all paid and capital account closed is £16,000 per English mile, and is within the capital of the company. The whole of this capital is Spanish money, mostly subscribed by Bilbao and its commercial connections. Not a share is held out of Spain or the colonies of Spain. No bonds have been issued, nor any mortgages given. The credit of the company and of its directors stood high enough to procure them all the financial aid they wanted; and they were spared the necessity of having to issue their obligations at the ruinous discount common to other railway companies on the Continent. There is a government subvention equivalent to 30 per cent of the capital.

It may be mentioned that this line joins the Northern Railway of Spain at Miranda on the Ebro, which railway is opened from Madrid to the southern slope of the Pyrenees, near Alzazua, about 25 miles N. E. of Vittoria, with the exception of a gap of 30 or 40 miles, including the Guadarama Mountains. By this route the Minister of Public Works (Marquis Armigo de Vega), returned from Bilbao to Madrid in 18 hours, of which only 12 were by railway. When the above gap is closed as it will be next year, the journey from Bilbao to Madrid will be performed in 14 hours. It will perhaps be some years longer before the Northern Railway of Spain will be completely connected with the French lines at the frontier; but towards the end of next year (1863) there will only remain a portion unfinished equal to four or five hours' travelling by diligence across the Pyrenees, form-

ing the only exception as to a through route by railway from Paris to Madrid; and, indeed, the distance between these two capitals may then be traversed in thirty-six hours, notwithstanding the above drawback.

In the engineering court at the International Exhibition there is to be seen a very fine and accurate model on a large scale of the Passage of the Tudela and Bilbao Railway across the Pyrenees. It has been pronounced by competent judges to be the most perfect topographical and geological model yet exhibited. An inspection will give a better idea of the character of the railway than any description by words. The engineer-in-chief of the railway, as well as of the proposed breakwater, is Mr. VIGNOLES, F. R. S.

The contractor who executed the works through the Pyrenees, and from Bilbao to Miranda, is the celebrated Mr. BRASSEY. The iron for the railway, the engines, and the vehicles were made in England, as were also nearly all the materials for the station except the mere shell of the building. The chairman of the company is Senor DON PABLO DE EPALZA, who may be considered as holding the highest rank as a Spanish merchant. The managing director is Senor MONTESINO, formerly Director General of Public Works in Spain. He is a member of the Cortes, and one of the commissioners for Spain at the International Exhibition.

On the completion of the Tudela and Bilbao Railway, it will become the great channel through which the corn, wine, and oil of Castile, and the rich agricultural provinces west of Burgos and Valladolid as far as Leon, will find their way for exportation at Bilbao.—*London Times.*

THE ITALIAN RAILWAY CONTRACT.

The contract for the great Italian railway undertaking has been awarded to Count BASTOGI. We give below an abstract of the exact provisions of the law. The terms of the concession to Count BASTOGI, favorable as they are, are far more economical for the Italian Government than any of the competing tenders.

By a law of August 21, 1862, the Italian Government, with the previous sanction of Parliament, granted the construction of a large extent of railways in Southern Italy and in Lombardy to Count BASTOGI, the ex-finance minister of the CAVOUR and RICASOLI administrations. The concession includes, according to the text of the law, the following lines:

1. A main trunk which, starting from Ancona, runs along the shore of the Adriatic by Pescara, Termoli, Foggia, Barletta, Bari, Brindisi, and Lecce to Otranto, with a branch from Bari to Taranto on the Ionian Sea—a length together of about 750 kilometres, or 463 English miles.

2. A branch line from Foggia by Ascoli, Conza, and Eboli to Salerno, (where it meets the line already existing to Naples,) about 181 kilometres, or 111 English miles long.

3. A branch from Ceprano (where it falls into the line already constructed from Rome to Naples) by Sora, Celano, Sulmona, and Popoli to Pescara, of about 231 kilometres, or 145 English miles.

4. A branch of 28 kilometres, or 20 English miles, from Voghera to Pavia; and—

5. Another branch, 167 kilometres, or 101 English miles long, from the latter place to Brescia by Cremona. With regard to this latter branch, however, the Lombardo and Central Italian Railway Company are reserved the right of preference, to which they are entitled by a former concession, for its construction.

Altogether, 1,357 kilometres, or about 840 English miles of railways.

The concession is for 99 years, (to begin from the 1st of January, 1868, by which time the whole of them is to be finally constructed,) for all of them except that from Voghera to Pavia and Brescia, for which it is only for 90 years, dating from the 1st of January, 1865, when they are to be opened for traffic.

By the concession the grantee is bound to form, within one month from its date, a Limited Company (*Societa Anonima*) under the denomination of the Italian Southern Railway Company (*Societa Italiana per le Strade Ferrate Meridionali,*) with a capital of 100,000,000 of francs, (£4,000,000) in shares, and power of raising, when required, 200,000,000 (£8,000,000) more by issuing debentures; altogether 300,000,000 of francs (£12,000,000.) But as the government grants a subsidy of 20,000,000 of francs, (£800,000,) of which 10,000,000 are in works already executed, and the other 10,000,000 in *public lands*, the capital which the company may eventually have to supply will be 280,000,000 of francs (£11,200,000.)

The government guarantees a gross return of 20,000 francs (£800) per kilometre on the lines from Voghera to Pavia and Brescia, and of 29,000 francs (£1,160) per kilometre on all the Southern lines, during the whole term of the concession.

From Salerno to Naples it is at the option of the grantee either to construct an entirely new line round the E. and N. E. basis of Vesuvius, or to purchase the line already existing through Vietri, Cava, Nocera, and Torra Annonziata, upon which, in case of purchase, the same government guaranty of 29,000 francs per kilometre will be granted as on the lines of new construction.

With regard to the branch from Pescara to Ceprano, which, having to cross the main ridge of the Apennines, offers much greater engineering difficulties than any of the others, it is provided that the government will have to reimburse the grantee any sum exceeding 250,000 francs (£10,000) per kilometre for its construction.

A right is reserved to the State of taking possession, within three years from the date of the concession, of the short branch from Voghera to Pavia by refunding to the company the cost of its construction and the interest of the capital invested in it.

Such are the principal provisions of the law above mentioned. If we are rightly informed, the formation of the company was accomplished by a deed executed before a public notary at Turin, on Thursday, the 18th instant, and the first instalment of 30,000,000 of francs (£1,200,000) on the shares has *already been paid up* by the shareholders, among whom there are many of the best known bankers and landed proprietors in Italy.

TOLLS ON RAILROADS.

THE PEOPLE OF THE STATE OF NEW YORK *vs.* THE NEW YORK CENTRAL RAILROAD.

We referred to this case and the decision of the Supreme Court, in the

October number of the *Merchants' Magazine*, for 1861, (vol. 45, page 351.) The facts we then stated to be as follows:

The defendants are a corporation formed under the act of April, 1853. Previous to their organization under this act, they existed (as is well known) as several separate companies, each under its own charter. Part of these companies, by their charters, were required to pay tolls on all property transported by them, and others were required to pay toll only during canal navigation, and others not at all. The act of 1853, under which they were all consolidated, made the defendants subject to all the liabilities of the several companies, and also subject to the liabilities imposed by the general railroad act of 1850, one section of which act required all corporations formed under it, and whose roads were parallel to and within thirty miles of any State canal, to pay tolls on freight. On the 10th of July, 1851, however, an act was passed abolishing tolls on railroads after December 31st, 1851, and repealing all acts and parts of acts inconsistent with that act. This provision the defendants set up as their defense to this action. The plaintiffs, on the contrary, insist that the act of 1851 was unconstitutional and void, because these tolls formed "part of the revenues of the State canals," and that by the constitution the Legislature is prohibited from selling, leasing, or otherwise disposing of the canals, or their freight, or their revenue. The point, therefore, at issue is, whether or not this act of the Legislature abolishing tolls is unconstitutional. Or, in other words, the plaintiff must make out, before his claim can be considered established, first, that these railroad tolls are a part of the "revenues of the State canals," and second, that the constitution forbids the impairing of these revenues.

On these facts the Supreme Court held that this act of 1851 is not unconstitutional, and that the defendants, therefore, are not liable to pay tolls. The case was then taken on appeal to the Court of Appeals, and argued at the last April term, and we now have the decision of that court affirming the judgment of the Supreme Court. Thus this question, which should never have been raised on behalf of the State, may be considered settled.

STEEL FOR RAILWAY BARS.

From the consideration which the manufacture of iron, semi-steel, and steel, by various new processes is receiving, it is not at all improbable that we shall before long see companies laying down something for rails besides ordinary wrought or rolled bars. Rails have been made from steel by the Bessemer process for $112 per ton, which are claimed to be so tough and hard that no amount of wear will destroy them. The homogeneous metal from Bessemer's process is said to be fifty per cent stronger than the best iron in the English market. In the manufacture of rails, one object has been to increase the hardness of the wearing surface, and thus to prolong their life. This has been done by rolling a steel bar along with the iron bars of the rail pile so as to make the head or wearing surface of the rail. Another mode of accomplishing the same result is casehardening the upper surface of the rail. Neither of these processes have been thus far able to prevent the lamination of the lower part of the rail. The Bessemer process ought, it strikes us, to give a uniform

rail, which, although expensive compared with the ordinary iron bar, would be admirably suited for railway work. In making rails by the above method, an ingot of steel was cast nine inches square and twenty-six inches long; this was hammered to six inches square and five feet long, an afterwards rolled to the usual form and length. Rails made thus show no tendency to laminate; are extremely tough, and exceed in strength the best quality of iron; the tensile strength being as high as forty tons per square inch. There appears to be no reason why cast steel should not thus be applied for railway bars. Care should be taken, however, to use an elastic chair, and to have the track laid in the best manner, that the full advantage of the more refined material may be obtained.—*The American Railway Times.*

THE NEW YORK CANALS.

The Albany *Evening Journal* states that the gross canal tolls for the fiscal year $4,810,476, to which we may add $40,000 for miscellaneous receipts, and we have a round sum of $4,850,000, which is an increase over any former year of $1,150,000. The net revenue for the year, deducting the charges for collection, superintendence, and repairs, will stand at $4,050,000, very nearly. The constitutional charges upon the canal revenues the next fiscal year, which this sum will meet, amount to $3,366,242, and among these charges are $550,000 to the general fund, to pay the interest on the general fund debt and for the support of government; very nearly $1,400,000 to the sinking funds, to extinguish the principal of the canal debt, and the residue to pay the accruing interest for the year on the canal stock debt. Aside from these charges, which are appropriated, there will be an overplus of about $630,000, to appropriate to such purposes as may be designated. In January and June last, the State paid off $2,200,000 of its canal debt, and will now pay more, not due, if the holders will take it at a fair premium.

In 1858 and 1859 the gross receipts of the canals were only $3,931,084 51, and the net revenue, $1,955,326 64. At that time the average cost of maintenance was 51 per cent of the tolls, at present it is less than 17 per cent. Commercially speaking, the Mississippi River now runs through the lakes and empties into the Hudson at Albany.

STATISTICS OF AGRICULTURE.

1. The Consumption of Milk. 2. The Wheat Crop for 1862. 3. Productions of Agriculture for 1850 and 1860. 4. Agricultural Statistics for Ireland in 1862. 5. Tea in China. 6. Wheat Growing in Canada. 7. Composition of Milk at Different Times of Day.

THE CONSUMPTION OF MILK.

TABLE SHOWING THE PRODUCE OF MILK IN THIRTEEN STATES FOR THE YEAR ENDING JUNE 30, 1860, AND ALSO THE QUANTITY USED AS FOOD AND THE AMOUNT MANUFACTURED INTO BUTTER AND CHEESE FOR EACH STATE.

States.	Milch cows. Number.	Total produce. Quarts.	Used as food. Quarts.	Manf. butter. Quarts.	Manuf cheese. Quarts.
Maine.....	147,384	265,165,200	112,013,085	146,097,262	7,054,853
N. Hampshire	94,880	170,784,000	75,052,328	86,959,550	8,772,122
Vermont.....	171,698	309,056,400	81,288,157	196,022,925	31,745,318
Massachusetts	144,492	260,085,600	135,535,626	103,724,200	20,805,774
Rhode Island.	19,700	35,460,000	21,570,272	13,193,128	696,600
Connecticut..	98,877	177,978,600	63,585,989	99,071,856	15,320,755
New York...	1,123,623	2,022,521,400	543,030,641	1,288,695,987	190,794,772
Pennsylvania.	673,547	1,212,384,600	553,828,525	648,697,450	9,858,695
New Jersey..	138,818	249,872,400	109,868,653	139,287,811	715,936
Delaware ...	22,595	40,671,000	22,763,870	17,881,275	25,855
Maryland ...	94,463	170,033,400	96,286,486	73,714,130	32,784
Wisconsin...	193,996	349,192,800	174,214,114	170,638,162	4,340,524
Virginia	330,627	595,128,600	405,561,119	188,463,968	1,103,513
Total.....	3,254,630	5,858,334,000	2,394,618,865	3,172,447,704	291,267,431

According to the above statistics fifty-four per cent of the entire produce of milk is made into butter. The manufacture of this indispensable article of food has received the attention of our best chemists as well as our most skill manufacturers, and is now made in a very perfect manner. It is exported in large quantities and found in almost every port in a perfectly sweet condition. It is also kept fit for table use many months.

The dairy of the United States also produces an excellent quality of cheese, to the methods of the manufacture and care of which nothing need be added to the previous reports of the agricultural bureau. One point, however, cannot escape notice. In the thirteen above named States the milk used in the manufacture of cheese is only about one-twentieth of the annual produce of milk, it being only five per cent. The cheese crop consumes only about one-eleventh as much as the butter crop. Its value is only about one-tenth as much.

We find also from the above table that forty-one per cent of the annual produce of milk is consumed as food. A large proportion of this milk is consumed within a few hours after milking, but a much larger proportion, especially that for transportation, is kept for a considerable time. A much greater quantity would be sold could it be preserved a sufficient length of time to get it to market.

THE VALUE OF THE MILK CROP.

The value of the milk crop may be fairly estimated from the value of milk used in the manufacture of butter. Fifty-four per cent of the entire

crop in the thirteen States before-named is made into butter; hence, the value of butter form a very correct basis for ascertaining the true value of milk. In the following table the prices of milk given for each State have been derived by taking the average prices given for the cost value of butter at the places where it is made, and extended over a period of twelve years. The localities were selected from various sections of each State. This method was pursued with all the States except Wisconsin, which extended over a period of only three years.

I am aware that these values, with the exception of Delaware, fall below the generally estimated value of milk; yet I am confident that if there is any variation from the true value it is that I have overestimated them. *The value of milk in the United States will average less than one cent and five mills per quart.*

The following is a correct statement of the value of milk per quart, the total value of the crop, together with the amount consumed in each of the named States.

States.	Price per qt. Cents.	Value consumed.	Total value.
Maine	1.36	$1,523,377 96	$3,606,246 72
New Hampshire	1.44	1,080,753 52	2,459,289 60
Vermont	1.28	1,040,488 41	3,955,921 92
Massachusetts	1.68	2,277,334 52	4,369,438 08
Rhode Island	1.64	353,752 46	518,514 00
Connecticut	1.60	1,017,375 82	2,847,657 60
New York	1.36	7,385,216 72	27,506,291 04
Pennsylvania	1.28	7,089,005 12	15,518,522 88
New Jersey	1.76	1,933,688 29	4,396,754 24
Delaware	2.00	455,277 40	813,420 00
Maryland	1.20	1,155,437 83	2,040,400 80
Wisconsin	1.48	2,578,368 89	5,160,053 44
Virginia	1.12	4,542,284 53	6,665,440 32
Total	....	$32,432,361 47	$79,857,980 64

Milk is worth the most in Delaware and the least in Virginia. The small extent of the territory of Delaware, and its proximity to market, will readily account for the high price of its milk crop.

New York produces as much milk in value as the six New England States, together with New Jersey, Delaware, and Maryland.

New York and Pennsylvania produce more milk than the eleven remainnig States, and nearly one-third the entire crop of the United States.

It is remarkable that Maine, New Hampshire, Vermont, Connecticut, New Jersey, and Maryland consume about the same amount in value. Pennsylvania consumes nearly as much as New York, although she produces but little more than half in value.

The value of milk seems to be determined by its proximity to market. It cannot be transported under the present treatment like many other articles of produce.

With the above tables as a basis, it is estimated that the entire milk crop of the United States for the year 1860 exceeded $160,000,000.

Amount consumed as food	$90,000,000
Amount manufactured into butter	65,000,000
Amount manufactured into cheese	5,000,000
Total	$160,000,000

The above is the cost of the milk. The additional value produced by the manufacture and transportation of butter and cheese will make the value of the dairy of the United States for the year 1860 exceed $200,000,000.

This estimate is made on the value of milk at 1.48 cent per quart. Should the common estimate of two cents per quart be adopted, the value of the dairy will be upwards of $260,000,000.

This estimate is also made on assuming the average produce of each cow to be 1,800 quarts of milk. Should the annual average produce of cows be raised to 2,200 each, as it ought to be, the value of the dairy products of the country would be about $320,000,000.—*Patent Office Report.*

THE WHEAT CROP FOR 1862.

In our last issue we gave our usual statement of the export of breadstuffs for the year ending September 30, 1862. Considering the condition of our country, (the total suspension of the cotton trade,) the probable export of these articles the coming year is a question of vital importance.

As to the present crop in the United States, there is but one voice—it is unusually abundant. Our overflowing granaries would almost feed the world.

In Europe they have not been thus favored—England's crop is probably much below the average; France is better off, but not enough so to supply her own wants, while Russia will be able to spare less than usual. The following, from the *Gardners' Chronicle and Agricultural Gazette*, will give a fair idea of England's position:

"There can be no doubt that the wheat harvest crop of 1862 is one of the worst we have had for many years. There has always hitherto, on the occasion of these annual returns, been, among two hundred correspondents, a considerable proportion who have declared the crop to be over average, even where the preponderance of opinion and the ultimate experience lay all the other way. We have never before had to report that of one hundred and eight-eight reporters there is only one who speaks of the crop in his neighborhod as being 'very good;' and he from an Irish county, whose wheat crop has no great influence on the general supply of the year. And it is a still worse report of the information which has reached us that, out of 188, there are no fewer than 150 who declare the crop to be inferior; only 37 who anticipate an ordinary return. Storms of wind, causing the plant to be roots fallen before the seed was fully formed—'red gum' and 'mildew,' the consequence of an unkindly summer, have produced their natural result—a deficient harvest. A correspondent, who very properly adopted the signature of 'Common Sense,' fairly describes our position in the following paragraph:

"'I have often, in former years, observed the curious unwillingness shown by the public, (that is, the newspapers,) to acknowledge the unpleasant fact of a deficient harvest.

"'Our summer throughout England has been cold and wet. The consequence—namely, a deficient harvest—is as certain as that two and two make four; yet I observe the newspapers persist in inserting nonsensical paragraphs as to the probability of an average produce, which one should think the slightest consideration would show to be now impossible.'

The following is the tabular epitome of the returns, and it entirely bears out the above prediction of 'Common Sense:'

Crops.	Over av'ge.	Average.	Under av'ge.	Total rep'ts.
Wheat.....No.	1	37	150	188
Barley.....	26	108	53	187
Oats.....	37	108	55	200
Beans.....	42	80	13	135
Peas.....	10	73	23	106

It results from these figures that the wheat crop is very inferior, that barley is barely an average crop, that oats are a fair average, that beans are generally good, and peas on the whole a fair crop."

The *Mark Lane Express*, (the best of authority,) of the last of August, says: "The better we become acquainted with the wheat crop the less satisfactory does it appear. Beyond the long reported blight, there is much mildew, which is a lasting hindrance to full maturity, and the yield proves below the expectations of those who were most in favor of a good crop. As to the early Talavera, it is a generally admitted failure, and the white qualities have seriously suffered."

The London *Economist* tells pretty much the same story.

But we think the best evidence of a short crop in Europe will be found in the following table from the London *Economist* of September 27:

WEEKLY REPORT OF SALES OF WHEAT.

	Quarters.
Sold last week.....	86,447
Corresponding week in 1861.....	144,079
" " 1860.....	53,655
" " 1859.....	131,574
" " 1858.....	135,381
Weekly average, September 20	54 *s.* 9 *d.*
" " " 13	55 10
" " " 6	58 4
" " August 30	58 4
" " " 23	57 9
" " " 16	57 4
Six weeks' average.....	57 1
Same time last year.....	52 9

It will here be seen (and the report for each preceding week is to the same effect,) that, although the price of wheat in London is higher now than at the same time last year, the sales have been only about one half the amount, showing, evidently, that in the opinion of the holders there is a short crop, and that they are holding on and waiting for higher prices.

PRODUCTIONS OF AGRICULTURE FOR 1850 AND 1860.

We find in the Report of the Eighth Census many interesting statistics showing the growth of the United States during the ten years in agriculture and agricultural productions, from which we have prepared the following.

The table below gives the amount of land under cultivation in 1850 and 1860 in each State and Territory, with the aggregate amounts:

LANDS IMPROVED IN 1850 AND 1860.

	Acres.	
	1850.	1860.
Alabama	4,435,614	6,462,987
Arkansas	781,530	1,933,036
California	32,454	2,430,882
Connecticut	1,768,178	1,830,808
Delaware	580,862	637,065
Florida	349,049	676,464
Georgia	6,378,479	8,062,758
Illinois	5,039,545	13,251,473
Indiana	5,046,543	8,161,717
Iowa	824,682	3,780,253
Kansas	.....	372,835
Kentucky	5,968,270	7,644,217
Louisiana	1,590,025	2,734,901
Maine	2,039,596	2,677,216
Maryland	2,797,905	3,002,269
Massachusetts	2,133,436	2,155,512
Michigan	1,929,110	3,419,861
Minnesota	5,035	554,397
Mississippi	3,444,358	5,150,008
Missouri	2,938,425	6,246,871
New Hampshire	2,251,488	2,367,039
New Jersey	1,767,991	1,944,445
New York	12,408,964	14,376,397
North Carolina	5,453,975	6,517,284
Ohio	9,851,493	12,665,587
Oregon	132,857	895,375
Pennsylvania	8,623,619	10,463,306
Rhode Island	356,487	329,884
South Carolina	4,072,551	4,572,060
Tennessee	5,175,173	6,897,974
Texas	643,976	2,649,207
Vermont	2,601,409	2,758,443
Virginia	10,360,135	11,435,954
Wisconsin	1,045,499	3,746,036
Total States	112,833,813	162,804,521
Territories.		
Columbia, District of	16,267	17,474
Dakota	.....	2,115
Nebraska	.....	122,582
New Mexico	166,201	149,415

	Acres.	
	1850.	1860.
Utah	10,333	82,260
Washington	.....	83,022
Total Territories	198,801	456,868
Aggregate	113,032,614	163,261,389

The total cash value of farms and live stock at the time of each census was as follows:

	1850.	1860.
Farms .....value	$3,271,575,426	$6,650,872,507
Live stock.....	544,180,516	1,107,490,216

In the last (October) number of the *Merchants' Magazine*, will be found tables showing the production of breadstuffs in 1840, 1850, and 1860. We give below the production of tobacco, ginned cotton, and wool:

PRODUCTION OF TOBACCO AND GINNED COTTON.

	Tobacco.		Ginned cotton.	
States.	1850. Pounds.	1860. Pounds.	1850. *Bales	1860. *Bales.
Alabama	164,990	221,284	564,429	997,978
Arkansas	218,936	999,757	65,344	367,485
California	1,000	3,150	.....	.....
Connecticut	1,267,624	6,000,133	.....	.....
Delaware	.....	9,699	.....	.....
Florida	998,614	758,015	45,131	63,322
Georgia	423,924	919,316	499,091	701,840
Illinois	841,394	7,014,230	.....	6
Indiana	1,044,620	7,246,132	14	.....
Iowa	6,041	312,919	.....	.....
Kansas	.....	16,978	.....	.....
Kentucky	55,501,196	108,102,433	758	4,092
Louisiana	26,878	40,610	178,737	722,218
Maine	.....	1,583	.....	.....
Maryland	21,407,497	38,410,965	.....	.....
Massachusetts	138,246	3,233,198	.....	.....
Michigan	1,245	120,621	.....	.....
Minnesota	.....	38,510	.....	.....
Mississippi	49,960	127,736	484,292	1,195,699
Missouri	17,113,784	25,086,196	.....	100
New Hampshire	50	21,281	.....	.....
New Jersey	310	149,485	.....	.....
New York	83,189	5,764,582	.....	.....
North Carolina	11,984,786	32,853,250	50,545	145,514
Ohio	10,454,449	25,528,972	.....	.....
Oregon	325	215	.....	.....
Pennsylvania	912,651	3,181,586	.....	.....
Rhode Island	.....	705	.....	.....
South Carolina	74,285	104,412	300,901	353,413

* Of 400 pounds each.

	Tobacco.		Ginned cotton.	
	1850.	1860.	1850.	1860.
Tennessee	20,148,932	38,931,277	191,532	227,450
Texas	66,897	98,016	58,072	405,100
Vermont	.....	12,153	.....	.....
Virginia	56,803,227	123,967,757	3,947	12,727
Wisconsin	1,268	87,595	.....	.....
Total	199,736,318	429,364,751	2,445,793	5,196,944
Territories.				
Columbia, District of	7,800	15,200	.....	....
Nebraska	....	3,801	.....	....
New Mexico	8,467	6,999	.....	....
Utah	70	10	.....	1,133
Washington	....	10	.....	....
Total	16,337	26,020	.....	1,133
Aggregate	199,752,655	429,390,771	2,445,793	*5,198,077

PRODUCTION OF WOOL.

States.	Pounds.	
	1850.	1860.
Alabama	657,118	681,404
Arkansas	182,595	410,285
California	5,520	2,681,922
Connecticut	497,454	335,986
Delaware	57,768	50,201
Florida	23,247	58,594
Georgia	990,019	946,229
Illinois	2,150,113	2,477,563
Indiana	2,610,287	2,466,264
Iowa	373,898	653,036
Kansas	.....	22,593
Kentucky	2,297,433	2,325,124
Louisiana	109,897	296,187
Maine	1,364,034	1,495,063
Maryland	477,438	491,511
Massachusetts	585,136	377,267
Michigan	2,043,283	4,062,858
Minnesota	85	22,740
Mississippi	559,619	637,729
Missouri	1,627,164	2,069,778
New Hampshire	1,108,476	1,160,212
New Jersey	375,396	349,250
New York	10,071,301	9,454,473
North Carolina	970,738	883,473
Ohio	10,196,371	10,648,161
Oregon	29,686	208,943
Pennsylvania	4,481,570	4,752,523

* See *Merchants' Magazine*, vol. 47, page 358.

States.	Pounds. 1850.	Pounds. 1860.
Rhode Island	129,692	90,699
South Carolina	487,233	427,102
Tennessee	1,364,378	1,400,508
Texas	131,917	1,497,748
Vermont	3,400,717	2,975,544
Virginia	2,860,765	2,509,443
Wisconsin	253,963	1,011,915
Total States	52,474,311	59,932,328
Territories.		
Columbia, District of	525	100
Nebraska	.....	3,312
New Mexico	32,901	479,245
Utah	9,222	75,638
Washington	....	20,720
Total Territories	42,648	579,015
Aggregate	52,516,959	60,511,343

AGRICULTURAL STATISTICS OF IRELAND IN 1862.

The general abstracts showing the acreage under the several crops and the number of live stock in each county and province of Ireland for the present year, taken under the direction of Mr. DONNELLY, the Registrar General, have been printed. They have been compiled from the summaries made by 4,000 enumerators, selected from the constabulary and the metropolitan police, who have been everywhere readily assisted by the landed proprietors, the clergy of all denominations, and the tenant farmers. The inquiries commenced on the 2d of June, and terminated in the middle of July, during which period the particulars of the acreage under crops and the number of live stock on nearly 600,000 holdings are enumerated.

Comparing the returns of this year with last, there is a considerable decrease both in the quantity of land under tillage and in the number of live stock. The total number of acres under cereal crops in 1861 was 2,624,957; in 1862 it is 2,552,223, showing a decrease of 72,734 acres. The decrease has occurred chiefly in wheat and oats—in the former, amounting to 43,427, and in the latter, 24,423 acres. There is an increase of 1,000 acres in peas and beans. The net decrease in cereals, comparing 1862 to 1861, is 28 per cent.

There is a decrease to about the same extent in green crops—that is, 74,785 acres. There is an increase in turnips of 43,045 acres; in mangold and beet, of 296 acres; in cabbage, of 491 acres; carrots, parsnips, vetches, and rape have decreased. The most serious matter is the decrease of land under potatoes, which amounts to 116,187 acres. Meadow and clover covered 1,552,829 acres in 1862, being an increase of 6,623 acres above the extent in 1861. We have about 150,000 acres under flax,

which is 2,000 more than last year. The total decrease of land under crops in 1862 is 138,841 acres.

Of this area Mr. DONNELLY says 117,832 would seem to have merged into grass, 1,066 were returned as under woods and plantations, and 870 went to increase the fallow, leaving 19,000 acres of pasture land unstocked. The quantity which is returned as "bog and waste" is confined entirely to Connaught. The distress which prevailed in some districts last spring prevented the small holders in many instances from putting in their crops as usual. The dearness of labor has probably operated in other districts in lessening the quantity of tillage.

The same unfavorable influences have tended to diminish the number of live stock. The small farmers were obliged to sell their horses, cows, sheep, and pigs in order to get food. The falling off is the result of a temporary pressure, which caused the cultivators of the soil to live upon their capital. Since last year horses have diminished by 9,787, cattle by 221,292, sheep by 100,169; pigs have increased by 49,743. The total number of live stock in Ireland is worth £1,849,153, and is less valuable than the total number last year to the amount of £1,564,710, consequently the farmers are so much the poorer. Stock to the amount of a million and-a-half sterling have gone since last year to pay their rents and support their families. In this estimate horses are valued at £8 each; cattle, £6 10s.; sheep, 22s.; pigs, 25s.

TEA IN CHINA.

There are few subjects connected with the vegetable kingdom which have attracted such a large share of public notice as the tea-plant of China. Its cultivation on the Chinese hills, the particular species or variety which produces the black and green teas of commerce, and the method of preparing the leaves have always been objects of peculiar interest. The jealousy of the Chinese Government, in former times, prevented foreigners from visiting any of the districts where tea is cultivated; and the information derived from the Chinese merchants, even scanty as it was, was not to be depended upon. And hence we find our English authors contradicting each other; some asserting that the black and green teas are produced by the same variety, and that the difference in color is the result of a different mode of preparation; while others say that the black teas are produced from the plant calld by botanists *Thea Bohea*, and the green from *Thea veridis*, both of which we have had for many years in our gardens in England. During my travels in China since the last war, I have had frequent opportunities of inspecting some extensive tea districts in the black and green tea countries of Canton, Fokien, and Chekiang: the result of these observations is now laid before the reader. It will prove that even those who have had the best means of judging have been deceived, and that the greater part of the black and green teas which are brought yearly from China to Europe and America are obtained from the same species or variety, namely from the *Thea veridis*. Dried specimens of this plant were prepared in the districts I named, by myself and are now in the harbarium of the Horticultural Society of London, so that there can be no longer any doubt upon the subject. In the various parts of the Canton provinces where I had an opportunity of see-

ing tea cultivated, the species proved to be the *Thea Bohea*, or what is commonly called the black tea plant. In the green tea districts of the north—I allude more particularly to the province of Chekiang—I never met with a single plant of this species which is so common in the fields and gardens near Canton. All the plants in the green tea country near Ningpo, on the islands of the Chusan Archipelago, and in every part of the province which I have had an opportunity of visiting, proved, without exception, to be the *Thea viridis*. Two hundred miles further to the northwest, in the province of King-nan, and only a short distance from the tea hills in that quarter, I also found in gardens this species of tea. Thus far my actual observations exactly verified the opinions I had formed on the subject before I left England, viz., that the black teas were prepared from the *Thea Bohea*, and the green from *Thea viridis*. When I left the north, on my way to the city of Foochow, on the river Min, in the province of Fokien, I had no doubt that I should find the tea hills there covered with the other species, *Thea Bohea*, from which we generally suppose the black teas are made; and this was the more likely to be the case as this species actually derives its specific name from the Bohea hills in this province. Great was my surprise to find all the plants on the tea hills near Foochow exactly the same as those in the green tea districts of the North. Here were, then, green tea plantations on the black tea hills, and not a single plant of the *Thea Bohea* to be seen. Moreover, at the time of my visit, the natives were busily employed in the manufacture of black teas. Although the specific differences of the tea-plant were well known to me, I was so much surprised, and may say amused, at this discovery, that I procured a set of specimens for the herbarium, and also dug up a living plant, which I took northward to Chekiang. On comparing it with those which grow on the green tea hills, no difference whatever was observed. It appears, therefore, that the black and green teas of the Northern districts of China (those districts in which the greater part of the teas for the foreign markets are made) are both produced from the same variety, and that that variety is the *Thea viridis*, or what is commonly called the green tea-plant. On the other hand, those black and green teas which are manufactured in considerable quantities in the vicinity of Canton, are obtained from the *Thea Bohea*, or black tea.

In the green tea districts of Chikiang, near Ningpo, the first crop of leaves is generally gathered about the middle of April. This consists of the young leaf buds just as they begin to unfold, and forms a fine and delicate kind of young hyson, which is held in high estimation by the natives, and is generally sent about in small quantities as presents to their friends. It is a scarce and expensive article, and the picking off the leaves in such a young state does considerable injury to the tea plantation. The summer rains, however, which fall copiously about this season, moisten the earth and air; and if the plants are young and vigorous, they soon push out fresh leaves. In a fortnight or three weeks from the time of the first picking, the shrubs are again covered with fresh leaves, and are ready for the second gathering, which is the most important of the season. The third and last gathering, which takes place as soon as new leaves are formed, produces a very inferior kind of tea, which is rarely sent out of the district. The mode of gathering and preparing the leaves of the tea-plant is very simple. We have been so long accus-

tomed to magnify and mystify everything relating to the Chinese, that in all their arts and manufactures, we expect to find some peculiar practice, when the fact is, that many operations in China are more simple in their character than in most other parts of the world. To rightly understand the process of rolling and drying the leaves, which I am about to describe, it must be borne in mind that the grand object is to expel the moisture, and at the same time to retain as much as possible of the aromatic and other desirable secretions of the species. The system adopted to attain this end is as simple as it is efficacious. In the harvest seasons the natives are seen in little family groups on the side of every hill, when the weather is dry, engaged in gathering the tea leaves. They do not seem so particular as I imagined they would have been in this operation, but strip the leaves off rapidly and promiscuously, and throw them all into round baskets, made for the purpose out of split bamboo or ratan. In the beginning of May, when the principal gathering takes place, the young seed-vessels are about as large as peas. These are also stripped off and mixed with the leaves; it is these seed-vessels which we often see in our tea, and which has some slight resemblance to young capers. When a sufficient quantity of leaves are gathered, they are carried home to the cottage or barn, where the operation of drying is performed.

This is minutely described, and the author continues:—

I have stated that the plants grown in the district of Chekiang produce green teas, but it must not be supposed that they are the green teas which are exported to England. The leaf has a much more natural color, and has little or none of what we call the "beautiful bloom" upon it, which is so much admired in Europe and America. There is now no doubt that all these "blooming" green teas which are manufactured at Canton are dyed with Prussian blue and gypsom, to suit the taste of the foreign "barbarians;" indeed, the process may be seen any day during the season, by those who give themselves the trouble to seek after it. It is very likely that the same ingredients are also used in dying the northern green teas for the foreign market; of this, however, I am not quite certain. There is a vegetable dye obtained from *Isatis indigotica* much used in the northern districts, and called *Teinseng;* and it is not unlikely that it may be the substance which is employed. The Chinese never use these dyed teas themselves, and I certainly think their taste in this respect is more correct than ours. It is not to be supposed that the dye used can produce any very bad effects upon the consumer, for, had this been the case, it would have been discovered before now; but if entirely harmless or inert, its being so must be ascribed to the very small quantity which is employed in the manufacture.

In short, the black and green teas which are generally exported to England and the United States from the northern provinces of China, are made from the same species; and the difference of color, flavor, &c., is solely the result of the different modes of preparation.—FORTUNE'S *Wanderings in China.*

WHEAT GROWING IN CANADA.

The Montreal *Witness* says: "An analysis of our recent census returns shows that every county in Upper Canada, with but one exception, raises

more wheat than is required for the consumption of its own population, assuming that each man, woman, and child consumes on an average five bushels of wheat, or about a barrel of flour per annum. The county of Prescott alone, on the extreme eastern boundary of the Upper Province, fails to exceed the growth of five bushels per head of the population.

"The amount of wheat in Upper Canada, in 1860, was—of fall wheat, 7,537,651 bushels; of spring, 17,082,774 bushels; total, 24,620,425 bushels. The total production in 1851 of both varieties, according to the census of 1852, was 12,682,550 bushels. While the population had increased 46 per cent, the production of wheat had increased nearly 100 per cent.

"The county of Huron occupies the first place as regards the actual quantity of wheat produced. But the first place, as a wheat-growing county, belongs to Peel, if we take the amount raised in proportion to the population, which is the fairest method of determining what districts have been contributing most to the wealth of Canada, so far as the production of this, its grand agricultural staple, is concerned. We have made calculations from the census returns of the quantity of wheat raised by each county in 1860, in proportion to its population, and the following are the results: The county of Peel raised 934,139 bushels, or 34¼ bushels per head of its population; the county of Huron raised almost 34 per head; Perth, 32: Victoria, 31; Simcoe, 30; Waterloo, 29; Durham, Ontario, each 28; Wellington, 27; Halton, 26; Brant, 24; Bruce, 23; Oxford, 23; Middlesex, 23 (if the population of London be included, 19;) York, 23 (if the population of Toronto be included, 13;) Grey, 20; Northumberland, 17; Wentworth, 17 (if the population of Hamilton be included, 11); Norfolk, 16; Carlton, 15, (if the population of Ottawa be included, 10;) Haldimand, Peterborough, each 15; Lambton, 14; Dundas, Leeds, each 13; Frontenac, 12 (if the population of Kingston be included, 8); Elgin, Lennox and Addington, Lanark, each 12; Grenville, 11; Prince Edward, Renfrew, Stormont, each 10; Kent, 9; Hastings, Welland, each 8; Glengary, Lincoln, each 7; Essex, Russell, each 6; and Prescott, only 4 bushels per head of its population."

COMPOSITION OF MILK AT DIFFERENT TIMES OF DAY.

The Edinburgh *Medical Journal* says that Prof. BOEDECKER has analyzed the milk of a healthy cow, at various times of the day, with the view of determining the changes in the relative amount of its constituents. He found that the solids of the evening's milk (13 per cent) exceeded those of the morning's milk, (10 per cent,) while the water contained in the fluid was diminished from 89 per cent to 86 per cent. The fatty matters gradually increase as the day progresses. In the morning they amount to 2.17 per cent, at noon 2.63 per cent, and in the evening 5.42 per cent. This fact is important in a practical point of view—for while 16 ounces of morning's milk will yield nearly half an ounce of butter, about double this quantity can be obtained from the evening's milk. The casein is also increased in the evening's milk from 2. 24 to 2.70 per cent, but the albumen is diminished from 0.44 per cent to 0.31 per cent. Sugar is least abundant at midnight (4.19 per cent) and most plenty at noon (4.72 per cent.

JOURNAL OF MINING, MANUFACTURES, AND ART.

1. The Gold Mines of Nova Scotia. 2. The Preparation of Iron Plates. 3. Paper and Cloth made of Indian Corn Husks.

THE GOLD MINES OF NOVA SCOTIA.

The Boston *Commercial Advertiser* gives the following extract:

From a letter written by a gentleman at Goldenville, Sherbrook, St. Mary's, N. S., September, 1862, the writer states that he endeavors to give his own observations and experience of the Nova Scotia gold fields, how they have been worked, and how they may be worked to better advantage, with some other information:

"The gold found in Nova Scotia is in the 'ore' (or quartz rock) laying in strata with the whin and slate as they were originally formed, with the other primary rocks, and occupy (or are found along) the whole extent of the southern side of Nova Scotia, from Yarmouth to Canseau, and in many places in the interior. The strata of rock dips nearly perpendicular the strike; from East and West to E. S. E. and W. S. W.; there are detached pieces or parts lying in different directions or positions, such as at Country Harbor diggings, where the strike is nearly north and south.

"The principal washings are from fractured portions of the rock and quartz that have decayed or dissolved (forming earth) where they fell at the time of the eruption, that gave them all their present position, when thrown bodily from the interior of the earth, and are (as all 'boulders' or detatched pieces of the different rock, such as granite, whin, slate, and quartz are also found here) south of their main body or ledge. The quartz lay in veins through those different rocks in all directions, most of them, particularly the largest, are parallel with its strata, and are from a vertical to horizontal position, many at right angles.

"The principal gold bearing loads or leads are each from one-fourth of an inch to a foot or more in thickness, of an undulated form commonly called 'barrel formation,' and yield from one pennyweight to twelve ounces per ton; parts of some leads are eight to ten feet thick, as the gold lays in veins or branches through the quartz, and also in 'invisible' particles, it is very uncertain what lead or part of it is gold bearing, and many good leads may be condemned by the return from the crusher or not being fairly tested. Quartz are raised from one shaft yielding five to seven ounces, and an adjoining shaft or at a greater or less depth in the same one that will not pay for crushing.

"The work has, as yet, been carried on by parties inexperienced in quartz mining, in companies of from four to sixteen, with but small capital. Shares in some of these companies have been sold at all prices up to $600 per share; one three-fourth acre lot was disposed of for $8,000, principally for the rich earth washing on the surface. The large number of those claims are prospected by trenching for leads which may be missed, or, if found, do not realise as much as pay for crushing, many

strike the gold—and from the way the mine has been opened, and the difficulty with surface water, they have to abandon them for want of capital. It is now pretty generally allowed that they can only be worked by abundance of capital.

"It is not yet twelve months since gold was discovered in Goldenville (or Northwest Arm) diggings; up to that time, and during last winter, it was inhabited by the moose and other wild animals—it can, therefore, be only partially explored and not yet proved. Those mines cover a surface of about three miles long and three-fourths broad; there is a good road through to the wharf, which is within ten miles of the Atlantic. Vessels drawing twelve feet of water come up the river to the wharf; supplies, provisions, &c., are had at nearly Halifax prices. I have thus given a rough sketch of Goldenville. West of here there is Tangier, Nine Mile River, Renfrew, Laidlaws, Lawrence Town, Gold River, and Lunenburg; east are Wine Harbor, Country Harbor, and Isaacs Harbor, all in much the same position as to gold and the operations; there is no doubt abundance of room for spare capital to be laid out to advantage."

THE PREPARATION OF IRON PLATES.

Mr. Mattison, an artisan in the Devonport dockyard, England, has invented a mode of preparing iron plates for ships' sides, which it is expected will very much facilitate that difficult work. It is thus described:

The first process, taking the mould for the curve of the plate, is effected by what is termed an "Ordnance box"—that is, a wide piece of iron standing on its edge through which a number of movable bolts are placed. On the points of the bolts being fitted against the side of a ship they are pressed home into the hollows of the curve until the exact shape is obtained. They are then fastened by screws and thus rendered immovable. In connection with taking the mould is another instrument for obtaining the levels and curved edges of the ship's side. It is made of slight polished iron, exceedingly flexible, so that it readily conforms itself to the curve when by movable pieces of iron crossways and lengthways the levels are taken. The instrument on being removed returns immediately to its original flattened shape, the edges only retaining the peculiar form given to it by the ship's side. This instrument is for the levels only, the curve of the ship's side being obtained by the other. The mould being thus taken is transferred to the machine that actually makes the curve, which consists of a kind of iron box filled with what are termed "peppots"—that is, a number of pieces of iron about an inch square and ten inches long. These, by screws in the bottom, can also be lowered or raised, and the mould being placed on the top of these movable pieces of iron, the exact shape of the curve is secured, and the "peppots" are screwed into their proper position. Another framework, containing similar pieces of iron in a converse position, is suspended over the one already described. When the plate to be curved has to be laid on, the lower framework is to be drawn out on a kind of rail; the plate, after being heated, is laid on the top of the "peppots" and drawn into its former position, when by means of a lever, the upper "peppots" are brought

down with such power as to secure the required shape. The model is 20 inches wide, 30 long, and 42 high. The plan is said to possess great advantages over the one now in use for taking the curves by means of wooden moulds, which are usually 3½ feet wide and 4½ feet thick and about 15 feet long. These moulds are cumbersome and costly. Mr. MATTISON's plan has been submitted to Rear-Admiral Sir THOMAS PASLEY, superintendent, and other officers of the Devonport and Keyham yards, who are understood to have expressed their approval of the invention. The model is to be sent to Woolwich to be tested.

PAPER AND CLOTH MADE OF INDIAN CORN HUSKS.

The United States Patent Office has received an application from Vienna, Austria, for a patent on "improved methods of manufacturing the products of the maize plant." The inventor, Dr. ALOIS RITTER AUER VON WELSBACH, is a distinguished scientific man. He forwards samples of fiber, yarn, linen cloth, and paper of five varieties, in its natural color and bleached. The Washington correspondent of the Cincinnati *Gazette* has examined these samples, and writes concerning them as follows:

"The corn husk paper is remarkably good. Some of the qualities forwarded are fine tracing paper, which, though exceedingly thin, has nevertheless a firm, solid body and an excellent surface. From that the qualities range down to the coarsest wrapping papers, which certainly seem much stouter and tougher than corresponding grades of straw wrapping papers, and, it is claimed, can be produced at greatly reduced cost. Some of the sheets are an excellent article of book printing paper; others would almost pass for parchment. The inventor's own account of the various steps toward his discovery, is printed handsomely on a large sheet of the corn husk paper, in a style which it would puzzle our printers, with their best presses and papers, to surpass.

"The corn husk yarn and cloth are not nearly as good in their way as the specimens of paper. The yarn, however, is about equal to some of the old-fashioned tow yarn with which our grandmothers in this country were familiar; and the cloth is a trifle coarser and less firmly woven than the coarsest tow cloth. For many purposes for which coarse linen fabrics are now used, the corn husk cloth, as already manufactured, is well adapted. If the process of manufacture can be so improved, as the inventor claims, as to make finer qualities equally well, the importance of this new process can hardly be overrated. In this country, especially, where the raw material is already produced in the utmost abundance, the discovery of these new qualities will be like the *creation* of a new article of manufacture, that shall cost nothing in the outset, and be capable of supplying some of our most costly wants."

NAUTICAL INTELLIGENCE.

1. Foreign Navy Yards. 2. Navy of the United States. 3. England's Iron-Cased Fleet. 4. Notice to Mariners.

FOREIGN NAVY YARDS.

In a former number of the *Merchants' Magazine*, we gave a list of the English and French navies built and building. We find some interesting and fuller statements, as well as later information on the same subject, in a communication to the Boston *Commercial Bulletin*, by Donal McKay, Esq., (the best of authority,) he having made a personal inspection of the foreign navy yards:

IRON-CASED SHIPS.

The French possess in addition to 10 iron-cased floating batteries, constructed during and shortly after the Crimean war, the following iron-cased vessels afloat:

1. Two floating batteries, Peiho and Saigon, of 14 guns each, 150 horse-power, destined for harbor and coast defence. Their speed is 6½ knots per hour, considered to be perfectly sufficient for the purpose. They are coated with 4½ inch plates.

2. Four iron-cased frigates of the Gloire class: Gloire, Normandie, Invincible, and Couronne. They are armed with 36 rifled 30-pounders, and have engines of 900 horse-power. Their speed is 13¼ knots per hour, they rather pitch a good deal in heavy weather, but their rolling motions are remarkably easy. These ships are plated from stem to stern, from 6½ feet below the load line to the upper deck, with plates of 4¾ inches in thickness. The captain directs the movements from an iron-cased tower, placed behind the mainmast. This tower also contains the steering wheel. The officers rooms are all under a large, roomy poop-deck, well ventilated with large windows. This poop is not provided with a casing, and of course will be given up to destruction in case of a fight. Their length is 257 feet; breadth 56 feet; depth 27 feet. With the exception of the Couronne, which is built of iron, these ships are constructed of timber.

3. Two iron-cased ramships, Solferino and Magenta, of 52 guns and 1,000 horse-power. Both ships are built of timber. The iron casing up to the main-deck extends from stem to stern, but the two batteries are only cased amidships, covering 13 guns in each battery or each deck. The batteries are continued (outside of an iron-cased bulkhead) to stem and stern, similar to the Warrior, and left to destruction in case of a fight. The stem inclines from the load line upwards in a graceful hollow line backwards, and is on the upper part ornamented with an eagle. About three feet below the load line, attached to the stem and forepart of the vessel, is a heavy wrought-iron spar of 16 tons weight for running down other vessels.

The decks of all these before-mentioned vessels are plated under the deck-plank with three-eighths inch iron. The speed of these two ramships is even higher than that of the Gloire, viz.: 13½ knots per hour.

On the stocks the French have the following iron-cased vessels:

1. Two iron-cased floating batteries, Paixhans and Palestro, (the first of these has been a few days since launched,) of the Peiho-class, of 14 guns and 150 horse-power, built like them of timber. They have no rudder, and will be steered by large fins or leeboards, experience having shown that the common rudders are entirely insufficient for steering these ships.

2. Seven smaller iron-cased floating batteries for harbor defence, built of iron. Three of them, the Arrogante, Implacable, and Opiniatre, are building at Nantes in the private establishment of Messrs. GOUIN & GAIBERT. The four others, Embuscade, Imprenable, Protective, and Refuge, are building at Bordeaux in the yard of Mr. ARMAN. All these batteries are not destined for sea-service, but merely planned for the protection of the harbors. Of course they also would be of great service in the bombardment of forts.

The seven just named batteries have engines of 150 horse-power, and are armed with eight heavy guns. They are shorter and broader than those of the Peiho-class, and have yet less draught of water.

They will be completed for sea by Autumn of next year.

3. Ten iron-cased frigates, on a similar plan as the Gloire, but with a little greater length and more height of battery. While the Gloire and her sister ships have only six feet height of battery, the new frigates will have their ports 7¼ feet above the water. Nine of these frigates, viz., the Provence, Savoie, Revancke, Flandre, Gauloise, Magnanime, Valeureuse, Surveillante, and Guyenne, are built of timber; only one, the Heroine, is building of iron at L'Orient.

If peace should continue it will take about five years to complete these frigates, but if circumstances should dictate, every one of them could be ready for sea by end of next year.

Completed, the English have only the following: Warrior and Black Prince, of 40 guns and 1,250 horse-power; and the Defence and Resistance, of 18 guns and 600 horse-power. These four ships are armed with long 68 pounder solid shot guns, and 100 pounder rifled Armstrong's. The Warrior and Black Prince are, undoubtedly, most powerful and fast vessels, far superior to any other iron-cased ships afloat, and the only objection that I see against them is that they are built of iron. Iron for the construction of the bottom of men-of-war ships is a most objectionable material, (notwithstanding all the advantages of strength, lightness, etc., which it may offer,) on account of the inevitable fouling of the bottom and consequent loss of speed. The French have well weighed this question, and, therefore, with only two exceptions, have constructed their whole iron-cased fleet of timber. Iron bottoms do very well for mail-boats that keep almost continually in quick motion, and by the consequent great friction of the water clean their bottom; but the case with men-of-war ships is entirely different, they only go, in exceptional cases with full speed, and have frequently to lay still for several months and even for years. All the preparations for painting the bottoms of iron ships to prevent them from fouling have entirely failed to attain the object for which they were invented, and are now recognised to be only so many humbugs. To show you the bad effects of iron bottoms for men-of-war ships, let me give you some facts.

The trial speed of the Warrior, with all her stores on board, was 14.354

knots per hour. Her mean speed at sea, at her first cruise, was 12½ knots. After having been six months at sea, her trial speed is now 12½ knots, and her mean speed at sea not more than 10 knots. The ship having lost in this short time fully two knots of her true speed (due to her shape and power) merely on account of fouling of the bottom. The Black Prince, her sister ship, in all respects alike to her, her engines built by the same firm, JOHN PENN—only six weeks had elapsed since the vessel left the dry dock, but yet her bottom was so foul, that notwithstanding the most favorable weather and a smooth sea, she only realised a mean trial speed of 12.209 knots, fully 2.145 knots less than the speed of the Warrior. The ship was brought now again into the dry dock, got her bottom cleaned, and in her last trial trip she attained a speed of 13.317 knots. Though fully one knot less than the Warrior, yet showing that the ship had lost in her previous trial fully 1.008 knots on account of fouling of her bottom in the short time of six weeks.

The trial speed of the Resistance, with a clean bottom, all stores on board, has been proved to be 11.356 knots; what it probably will be now after the ship has been laying only eight weeks in the Medway, you may judge from the following official account:

"The Resistance, 18 guns screw iron frigate, was placed in dock at Portsmouth on the 9th September instant, and her bottom found to be in an extraordinary state for a ship on the home station, bearing more the appearance of having gone through a long commission on the coast of Africa. The entire bottom of the ship was covered with weeds and long grass of every kind and color, with huge patches and mussels here and there on the port side, together with a good sprinkling of barnacles. On the starboard side, however, the barnacles extended from stem to stern, with an immense quantity of weeds and long grass; the latter in some places, as under the quarter, full *three* feet in length. Large mussels, too, extended fore and aft in clusters, hanging in places as large as conks. From the stem to abreast the forechains on this side, about three feet below the waterline, a belt of mussels adhered to the ship's bow of from two to five inches in thickness, and from one to two feet broad. The whole of the composition which had been laid on to protect the iron on this side appears to have been destroyed, and patches of rust, more particularly under the quarter, have eaten their way through."

The following are the English iron-cased ships now building:

1st. Ships built of iron.

The Achilles, building at Chatham, a sister ship to the Warrior, with some slight alterations in the shape of her bottom, which is a little fuller in the bilge. In the plating of the ship some new features, indeed great improvements, will be introduced. She will be cased from stem to stern in the vicinity of the load-line; but her battery will be iron-cased only to the same extent as that of the Warrior; and, like her, the cased part will be guarded by two strong iron-cased bulkheads running across the main deck. Her power and armament will be like that of the Warrior, on which ship she will be a great improvement. Her speed is estimated at 14.10 knots. It will take fully two years to finish her, because the government finds the greatest difficulty in procuring iron which will stand the test of strength applied to it. Hundreds of tons of angle-iron and

plate-iron have been condemned there already on this account. Another great reason against the adoption of iron ships. The government test for iron is 22 tons with the grain, and 19 tons across the grain. In the private yards where no control of that kind is exercised, of course good and bad plates are worked in, and we see in that one of the reasons why so many ships break up in such a fearful manner whenever they strike the bottom.

The Hector and Valiant, of 32 guns, 4,063 tons and 800 horse-power, are building. The first, at Glasgow; the second, at Newcastle. Their estimated speed is 11.75 knots. Nothing has been decided yet how these ships are to be plated.

The Egincourt, Minotaur, and Northumberland, of 50 guns, 6,621 tons and 1,350 horse-power, are building respectively at Birkenhead, Blackwall, and Millwall. They will be cased from stem to stern with 5½ inch iron plates on a wooden backing of 10 inches, at least that was the original plan; if it will be carried out thus is yet doubtful, for the latest experiments have already proved that 4½ inch iron on 22 inch timber backing (like the Warrior) offer much better security against the effects of shot, than 5½ inch iron backed by 10 inches of timber.

The armament of these ships will consist all in 68-pounder solid shot-guns, and 100 and 110-pounder Armstrong guns. Their trial speed has been estimated and calculated at 14.30 knots, and without any doubt they are, or will be, most formidable vessels.

The Prince Albert, of 12 guns, 2,529 tons and 500 horse-power, is building at Millwall. She is to be provided with six cupolas or turrets on Captain Coles' plan. She is to be plated with 5½ inch iron, but even that has not been decided yet. The opinion of all practical men is decidedly against these shieldships.

I come now to the wooden iron-cased ships in progress of construction, of which so far four classes have been adopted.

The first and by far the most formidable class are the frigates of 34 guns, converted from the 91 screw line-of-battle ships, laid down in 1859. These ships were cut down two decks, lengthened amidships, the shape of the stem altered to make the ships fit for acting as rams, and the stern altered to a somewhat similar shape as the Gloire, yet presenting a much lighter and handsomer appearance than that ship. The ships thus converted are the Ocean and Prince Consort, each of 1,000 horse-power and 34 guns; and the Caledonia, Royal Oak, and Royal Alfred, each of 800 horse-power and 34 guns.

The speed expected to be realized by the two first ships is 12.40 knots per hour; the speed of the three latter ships is estimated at 11 50 knots per hour.

The Prince Consort and the Royal Oak have been lately launched. They are partly plated and will be ready for service in the course of this year. The dimensions of these ships are: length between the perpendiculars, 273 feet; breadth, extreme, 58 feet five inches; breadth, moulded, 56 feet 4 inches; depth of hold, 19 feet 10 inches; burthen in tons, 4,045 26-94. The ships are built in the most substantial manner and of the best materials. Their frames have at the height of the load line a thickness of about 14 inches, their wales are 8 inches thick, and the ceiling 6 to 8 inches. All the wales are coaged to the timbers. The iron plates with which the ships are cased from five feet below the load line

to the upper deck are 4½ inches in thickness, tapering to 3 inches at the stem and stern. The upper deck beams are of iron, and the deck is iron plated with ¼ inch to ⅝ inch plates under the deck plank. A great many ingenious and highly practical details are introduced in the fastening and working of the armor plates (impossible to describe without detailed sketches) that will render the iron armor of these ships more effectual than that of any other class of ships constructed either in England, France, or America. The interior arrangements and fittings are admirably planned, the ventilation perfect throughout, the arrangements for freeing the ships of water are of the most complete kind; and on the whole, this class of ships give the highest credit to its designers and to those officers who were charged with the execution of the plans. I have not the slightest doubt that this class of ships will prove to be the most effectual and useful in future naval warfare, and that we ought to have in the United States ready at least a dozen of similar frigates, with modifications in their shape and dimensions to adapt them to our requirements. Several of the other 91 gunships, yet on the stocks, will be converted into iron cased frigates on precisely the same plan. The armament of these ships will consist in 68 pounder solid shot guns, and in Armstrong 100 and 150-pounder rifled guns, 34 in all. Their masts are all of iron and of immense strength.

The Royal Sovereign, formerly a screw line-of-battle ship of 131 guns, is at present being transformed into a shield-ship, on Captain COLES plan. Her dimensions before the conversion were: length between perpendiculars, 240 feet 6 inches; breadth, extreme, 60 feet. The length remains unaltered, but her breadth will be increased by 2 feet 1 inch, making her tonnage 3,765 tons. The ship has been cut down to her main deck, which has been raised 18 inches at the side and 26 inches in the middle, to form a kind of glacis, allowing the guns in the turrets to be considerably depressed. The ship will carry four turrets, each one of which will contain two 150 or even 300 pounder Armstrong guns. The stern of the ship has been very much altered, and the counter lowered about 10 feet, so that the rudder-post may enter the ship below the load line, and the rudder head be entirely protected.

The top sides of the vessel have been strengthened with two thicknesses of diagonal plank, of respectively 3 and 4 inches, crossing each other at an angle of 45 degrees, and the armor plates of 5½ inches in thickness will be applied on these. The ship will have no masts and sails, and only will be moved by steam. Her engines have a power of 800 horses, and her actual speed is 12-25 knots per hour. Though the vessel will carry a powerful armament, it is conceded by all parties that vessels of her kind, like all the rest of the Monitor family, are only good for harbor defences, but not fit for fighting at sea.

There are two other classes of ships building, on plans of Mr. REED, naval architect, who got a temporary appointment in the navy. The characteristics of these ships are that they are only plated a little above and below the load-line and the midship part of the vessel containing the guns. The object of the design is to relieve the ends of his vessel of weight, and so far his plans agree with those I proposed to our Navy Department eighteen months ago—but *in vain*. Here the plan has found great favor with the admiralty, and a great number of 36 gun frigates are to be transformed into iron-cased sloops on this plan.

A small vessel on this plan—the Enterprise—is building at Deptford dockyard. She has a length of 180 feet, breadth of 36 feet, and a draught of water of 15 feet. Her engines will be of 160 horse-power, and her speed is estimated at 9.50 knots. She will carry an armament of 4 Armstrong 100-pounders.

The larger class, of which the Favorite, converting in Deptford, is a sample, has 400 horse-power and a speed of about 11 knots. The Enterprise will be finished this year; the Favorite in the course of the next.

The experiments with regard to the resistance of iron armor plates against shot and shell are continued at Sheeburyness and Portsmouth, and the following are the results of experince gained thereby. Of all the systems proposed for armor plating ships that adopted for the Warrior (and in France for the Gloire) have given decidedly the best results, and it has been proved, with no chance of contradiction, that a strong wooden backing is absolutely necessary to make the armor plates resist the impact of shot, and that all attempts to reduce the wood-backing in thickness and increase the thickness of the armor plates by a quantity equal in weight to the withdrawn wood-backing have entirely failed.

The target representing a portion of the sides of the Warrior has successfully and entirely withstood the battering of 68-pounder cast and wrought iron shot, as well as the 100, 110 and 150-pounder wrought and cast iron shot thrown from the Armstrong rifled guns, and it only was at last penetrated by shot from the 300-pounder Armstrong gun. The Warrior target is plated with 4½ inch iron plates and 18 inches of wood-backing.

The target representing the side of the Minotaur being plated with 5½ inch iron, on a wood-backing of 9 inches, was penetrated by the 150 pound Armstrong shot, and badly shattered by the 68 pound solid shot.

Three other targets have been erected after plans furnished by Mr. Fairbairn, Samuda, and Scott Russell, where armor plates of increased thickness were applied directly on the iron skin of the vessel, but they entirely broke down, and were in a short while totally destroyed by the fire of the 68-pounder smooth bore gun. Thus showing that it is absolutely necessary to back the iron casing with a great thickness of wood.

The entire thickness of iron (armor plates and skin of the vessel) to be penetrated was, in the case of Fairbairn's target, 6¼ inches; Samuda's, 7 inches; Scott Russell's 8½ inches. The rivets fastening the armor plates to the skin of the vessel were in the two former targets entirely jarred to pieces, so that the armor plates might have dropped off the sides. In Scott Russell's target the armor plates had no fastenings in them, but they were united to the skin of the vessel by wedge-shaped angle irons, and the plates hung vertical instead of horizontal. This way of fastening seemed to be well devised, but it did not prevent the plates from being penetrated by the 150-pounder shot, which made a clean hole through the target.

Targets made on a similar principle as the Monitor casing, composed of a great number of successive layers of thin plates of iron riveted together, have been penetrated with the greatest facility by 68-pounder solid shot. It was even proved by the experiments that eight single thicknesses of one-inch plates riveted together will not offer more resistance to shot than a single well hammered, solid three-inch plate.

A further experience gained is that plates hammered of well selected

iron offer more resistance to shot than rolled plates of the same thickness.

We thus see, as a conclusion to the above, that the French can have by the end of next year a fleet of sixteen iron-cased frigates fit for foreign service, and the English can muster in a year and-a-half sixteen iron-cased frigates and two iron-cased corvettes, all fit for foreign service and for an aggressive warfare.

NAVY OF THE UNITED STATES.

The *Navy Register* for 1862 is out. It is dated up to 1st September, but having been at press some time it is slightly inaccurate. Annexed is a brief analysis of it:

Officers.	1862. Active.	1862. Retired.	1861. Active.	1861. Retired.
Rear Admirals	4	4	...	...
Commodores	18	17	...	...
Captains	40	32	78	15
Commanders	91	19	114	13
Lieutenant Commanders	114	..	...	...
Lieutenants	90	22	321	30
Surgeons	80	26	69	...
Assistant Surgeons	118	..	36	...
Passed "	2	..	43	...
Paymasters	62	9	64	...
Assistant Paymasters	31	..	...	...
Chaplains	16	7	34	...
Professors of Mathematics	12	..	12	...
Masters in line of promotion	..	1	36	...
Masters not in line of promotion	..	6	...	9
Passed Midshipmen	..	2	...	2
Midshipmen	328	..	299	...
Boatswains	54	..	43	...
Gunners	93	..	47	...
Carpenters	60	..	45	...
Sailmakers	46	..	40	...
Acting Lieutenants	15	..	...	...
" Volunteer Lieutenants	29	..	...	...
" Masters	586	..	...	...
" Ensigns	60	..	...	...
" Master's Mates	511	..	...	...
" Assistant Surgeons	94	..	...	...
" " Paymasters and Clerks	141	..	...	...
" Engineers	370	..	...	...
Total	3,095	151	2,081	70
Increase in 1862	1,095			

There were no admirals or commodores, properly so called in 1861, but captains in command of squadrons were named flag officers.

The vessels built and building up to September 1st, are as follows:

	Guns.	Tonnage.		Guns.	Tonnage.
13 iron-clad gunb'ts	125	11,701	25 screw sloops...	282	33,722
40 " building	136	51,478	18 sloops.....	230	13,508
103 side-wheel stmrs	559	72,611	24 barks.....	103	9,637
80 screw steamers .	340	41,793	20 m'rtar schooners	56	4,685
6 ships of the line	504	16,199	12 rams and gunb'ts	25	8,000
4 steam frigates..	180	13,266	4 brigs.....	20	999
6 frigates.....	292	13,846	8 schooners.....	12	1,154
21 ships.....	228	17,784			

ENGLAND'S IRON-CASED FLEET.

We find in the *European Times* the following list of all England's iron-cased ships and floating batteries, building or afloat:

IRON BUILT.—*Building.*	Horse power.	Speed in knots.
Achilles.....	1,250	14.1
Agincourt.....	1,350	14.3
Minotaur.....	1,350	14.3
Northumberland	1,350	14.3
Hector.....	800	11.75
Valiant.....	800	11.75
Prince Albert..	500	11.4
AFLOAT.		
Black Prince...	1,250	14.3
Warrior	1,250	14.354
Defence.....	600	11.356
Resistance.....	600	12.231
FLOATING BATTERIES.		
Erebus.....	200	about 5.5
Terror.....	200	"
Thunderbolt....	200	"

WOOD BUILT.—*Building.*	Horse power.	Speed in knots.
Caledonia.....	1,000	12.4
Ocean.....	1,000	12.4
Royal Alfred...	800	11.5
Royal Oak.....	800	11.5
Favourite.....	400	10.87
Enterprise.....	160	9.50
CONVERTING.		
Royal Sovereign	800	12.25
AFLOAT.		
Prince Consort.	1,000	12.4
FLOATING BATTERIES.		
Ætna.....	200	about 6.0
Glatton.....	150	about 5.5
Thunder.....	150	"
Trusty.....	150	"

Of the iron-built vessels, the Prince Albert and the three floating batteries are, or are to be, wholly cased with armor plating, the rest partially; of the wood-built, the Favourite and Enterprise are to be partially cased, the rest wholly. Only the Prince Albert and the Royal Sovereign are to be fitted with COLES' cupolas; the rest with masts.

NOTICE TO MARINERS.

CURRENTS NEAR ABACO, BAHAMA BANKS,
BUREAU OF NAVIGATION, *October 4th*, 1862.

The following information has been communicated to the Bureau by Acting Lieut. JAMES PARKER, U. S. N., who states that the writer is an

intelligent person, and that his experience subsequent to the wreck of the U. S. steamer Adirondack fully confirms the statements. It is made public for the benefit of navigators.

J. M. Gilliss, *Act. Com. of the Bureau.*

(Copy) "Island Abaco, Lat. 26° 31′ N. Lon. 76° 51′ W.

"The current among our islands are little understood, and are often erroneously stated by writers. This I know from thirteen years' strict investigation and experience. Here, with the waning moon, the current invariably sets from the southward toward the west, taking the curve of the Elbow Reef (as it is called) at the rate of three knots per hour in summer, and sometimes as much as five in winter, being subject to the variations caused by the wind and the ebb and flow of the tide, which sets in strong among the Cays surrounding the main Island of Abaco.

"Two or three days after the change of the moon the current changes in the opposite direction, inclining a little more to the east with a much less velocity, say from 1 to 2½ knots per hour, subject, as before stated, to the ebb and flow of the tide, &c. There is a large sheet of navigable water between the main island and the Cays, hence the strong set of the tide at various openings in the reef. This tide has considerable effect on vessels nearing them, as the number of wrecks in the immediate vicinity attest. Opposite the Man O'War Key, (where the ship went ashore,) the land is very low and the reef stretches out farthest to the north, with a wide opening, where no land can be seen except in a very clear night. This same place has been counted one of the best wrecking grounds in the Bahamas.

SHIPPING INTEREST OF GREAT BRITAIN.

The annexed table shows the proportions of British and foreign tonnage entered and cleared at ports of the United Kingdom during the last eighteen years:

Years.	British.	Foreign.	Years.	British.	Foreign.
1844.....per cent	71.9	28.1	1853.....per cent	58.9	41.1
1845.....	70.9	29 1	1854.....	60.1	39.9
1846.....	70.7	29.3	1855.....	59.9	40.1
1847.....	68.8	31.2	1856.....	61.3	38.7
1848.....	71.2	28.8	1857.....	60.9	39.1
1849.....	70.9	29.1	1858.....	59.8	40.2
1850.....	66.8	33.2	1859.....	60.1	39.9
1851.....	63.3	36.7	1860.....	56.4	43.6
1852.....	64.1	35.9	1861.....	58.0	42.0

JOURNAL OF BANKING, CURRENCY, AND FINANCE.

1. City Weekly Bank Returns—New York Banks, Philadelphia Banks, Boston Banks, Providence Banks. 2. Weekly Statement Bank of England. 3. Bank of France. 4. French Budget of 1863. 5 Banks of Wisconsin. 6. Finances of Vermont. 7. Banks of Illinois. 8. Debt of Mexico. 9. Taxation of Government Securities. 10. The Balance of Trade. 11. Bank of England—Access to their Bullion Room.

CITY WEEKLY BANK RETURNS.

New York Banks. (*Capital, Jan.*, 1862, $69,493,577; *Jan.*, 1861, $69,890,475.)

Date.	Loans.	Specie.	Circulation.	Net Deposits.	Weekly Clearings.
January 4,.....	$154,415,826	$23,983,878	$8,586,186	$111,789,233	$100,642,429
" 11,.....	152,088,012	25,373,070	8,121,512	113,889,762	105,634,811
" 18,.....	149,081,433	26,120,859	7,369,028	113,327,160	107,732,780
" 25, ...	145,767,680	26,698728	6,828,017	110,874,786	100,001,959
February 1,.....	144,675,778	27,479,583	6,404,951	112,057,003	93,791,629
" 8,.....	143,803,890	28,196,666	6,077,417	110,637,557	113,216,297
" 15,.....	141,994,192	28,114,148	5,762,506	110,430,475	105,102,177
" 22,.....	139,950,958	28,875,992	5,489,496	109,079,076	111,346,066
March 1,.....	137,674,238	29,826,959	5,363,944	107,974,499	109,854,823
" 8,.....	133,055,148	30,436,644	5,869,206	103,715,728	113,512,576
" 15,.....	130,622,776	30,773,050	5,904,866	100,296,704	118,957,978
" 22,.....	127,615,306	32,023,390	6,260,309	97,601,279	115,376,381
" 29,.....	125,021,680	32,841,802	6,758,313	94,428,071	106,973,432
April 5,.....	124,477,484	33,764,382	7,699,641	94,082,625	111,336,384
" 12,.....	123,412,491	34,594,668	8,004,843	93,759,063	114,738,013
" 19,.....	123,070,263	34,671,528	8,064,663	95,179,340	113,529,377
" 26,.....	125,086,825	35,297,944	8,118,571	101,897,435	124,396,783
May 3,.....	133,406,418	35,175,828	8,482,782	109,634,535	140,952,471
" 10,.....	138,948,211	32,239,868	8,830,321	115,559,206	181,113,537
" 17,.....	142,290,782	30,260,697	8,727,328	120,003,929	167,390,055
" 24,.....	142,950,149	30,672,760	8,592,676	122,602,864	142,828,565
" 31,.....	142,671,414	31,397,284	8,535,149	125,434,755	136,893,373
June 7,.....	142,318,881	31,248,882	8,813,603	125,566,961	148,123,103
" 14,.....	144,014,350	31,162,048	8,814,322	125,643,375	165,521,454
" 21,.....	146,839.762	31,047,945	8,849,183	126,684,422	168,059,995
" 28,.....	148,346,422	30,842,626	8,910,344	127,860,708	154,890,447
July 5,.....	148,643,718	31,790,519	9,270,815	127,496,534	149,748,923
" 12,.....	147,997,436	32,098,174	9,212,397	127,538,055	167,789,726
" 19,.....	148,827,423	31,926,609	9,155,301	129,485,977	161,066,594
" 26,.....	149,768,293	33,064,575	9,244,953	132,427,178	162,650,811
August 2,.....	150,517,844	34,022,490	9,311,868	137,112,937	149,167,638
" 9,.....	151,190,203	34,611,069	9,221,504	139,544,680	139,926 277
" 16,.....	152,328,731	35,301,778	9,237,206	142,084,051	139,796,908
" 23,.....	154,855,704	35,588,486	9,356,635	143,347,341	147,659,087
" 30,.....	158,278,552	35,640,982	9,454,806	141,971,741	150,875,167
Sept. 6,.....	158,435,859	36,138,928	9,645,965	142,663,036	154,074,880
" 13,.....	157,828,513	37,125,245	9,719,126	144,991,062	155,813,245
" 20,.....	158,299,288	37,863,037	9,789,060	148,680,453	179,681,651
" 27,.....	160,161,046	37,592,551	9,800,723	153,291,851	196,879,068
Oct. 4,.....	165,057,113	38,325,587	9,900,112	157,944,771	239,013,452
" 11,.....	169,675,009	39,263,086	9,880,050	162,965,264	243,083,030
" 18,.....	172,512,085	38,759,256	9,907,529	164,337,458	255,444,122
" 25	174,879,846	37,453,531	9,878,240	164,497,972	245,940,203

PHILADELPHIA BANKS. (*Capital, Jan.*, 1862, $11,970,130,)

Date.	Loans.	Specie.	Circulation.	Deposits.	Due to banks.	Due from banks.
Jan. 6,...	$31,046,537	$5,688,728	$2,145,219	$21,896,014	$3,645,956	$1,796,805
" 13,...	31,145,938	5,692,123	2,162,152	21,824,510	3,992,952	1,702,716
" 20,...	30,601,160	5,733,450	2,120,756	20,698,496	4,120,261	1,575,116
" 27,...	30,385,606	5,821,323	2,121,146	20,058,098	4,209,006	1,858,688
Feb. 3,...	30,385,319	5,884,011	2,144,398	20,068,890	4,572,872	1,707,136
" 10,...	29,974,700	5,923,874	2,191,547	19,032,535	4,890,288	1,587,481
" 17,...	29,388,544	5,849,354	2,191,512	18,692,182	4,661,442	2,052,031
" 24,...	29,280,049	5,867,686	2,230,605	18,777,300	5,205,203	1,935,414
Mar. 3,...	29,393,356	5,881,108	2,343,493	18,541,190	5,218,383	1,828,383
" 10,...	28,083,499	5,869,730	2,575,503	17,375,771	5,131,834	1,733,169
" 17, ..	28,723,835	5,897,891	2,632,627	17,253,461	5,342,876	1,649,187
" 24,...	28,350,615	5,915,535	2,707,804	17,066,267	5,210,365	1,774,162
" 31,...	27,831,333	5,884,314	2,904,542	17,024,198	5,100,186	2,134,392
April 7,...	28,037,691	5,886,424	3,378,970	16,636,538	5,607,488	2,231,889
" 14,...	28,076,717	5,912,870	3,496,420	18,112,446	4,868,842	2,634,171
" 21,...	28,246,733	6,046,260	3,525,400	19,011,833	4,548,327	2,504,147
" 28,...	28,793,116	6,052,827	3,613,994	20,223,556	4,470,674	3,128,069
May 5,...	29,524,432	6,049,685	3,759,692	21,316,614	4,531,837	3,823,659
" 12,...	29,966,347	5,728,028	3,867,200	23,002,263	5,118,541	4,981,291
" 19,...	31,121,563	5,529,221	4,045,696	23,385,009	5,597,984	4,804,956
" 26,...	31,538,603	5,587,012	4,186,055	23,973,478	5,472,615	5,120,902
June 2,...	31,747,070	5,583,482	4,335,013	24,884,644	5,373,322	5,372,748
" 9,...	31,951,715	5,632,307	4,354,599	24,973,011	5,161,280	5,355,034
" 16,...	32,132,654	5,630,503	4,298,023	24 807,057	5,036,828	5,396,328
" 23,...	32,554,655	5,609,926	4,224,735	24,143,314	5,144,628	4,800,094
" 30,...	32,911,578	5,573,999	4,430,057	24,410,423	5,583,644	5,233,273
July 7,...	33,206,661	5,545,007	4,749,220	24,307,782	5,733,574	5,422,124
" 14,...	33,118,502	5,579,945	4,859,921	24,183,604	5,936,594	5,415,203
" 21,...	33,086,808	5,613,724	5,005,583	24,485,817	5,794,325	5,219,445
" 28,...	33,383,373	5,579,788	5,055,276	24,764,281	5,918,294	5,308,984
Aug. 4,...	33,517,900	5,660,187	5,026,070	24,658,289	5,984,242	5,406,075
" 11,...	33,543,878	5,652,730	4,999,935	24,217,855	6,339,018	5,204,511
" 18,...	33,506,039	5,552,605	5,006,351	24,147,814	6,400,830	5,316,223
" 25,...	33,731,575	5,483,051	5,002,418	24,237,662	6,533,786	5,446,155
Sept. 1,...	33,899,351	5,543,160	5,071,855	24,597,596	6,518,107	5,322,089
" 8,...	34,631,350	5,546,157	5,192,935	25,062,171	6,632,905	5,139,978
" 15, ..	35,015,676	5,515,044	5,177,587	24,780,163	7,420,242	5,104,687
" 22,...	34,871,535	5,449,027	5,174,550	24,194,214	7,702,439	5,212,073
" 29,...	34,589,387	5,440,140	5,111,474	24,997,926	7,255,049	6,035,429
Oct. 6,...	34,826,063	5,453,748	5,095,704	25,419.340	7,119,340	5,714,780
" 13,...	35,298,494	5,508,970	5,091,061	25,735,561	7,171,391	2,396,801
" 20,...	35,526,851	5,467,907	5,050,614	25,892,970	7,244,194	2,250,832

BOSTON BANKS. (*Capital, Jan.*, 1862, $38,231,700; *Jan.*, 1861, $38,231,700.)

Date.	Loans.	Specie.	Circulation.	Deposits.	Due to banks.	Due from banks.
Jan. 6,...	$65,612,997	$8,920,486	$6,451,587	$27,093,839	$9,187,924	$8,701,873
" 13,...	64,704,039	8,580,607	6,612,512	25,642,994	9,634,227	8,805,255
" 20,...	64,409,585	8,585,277	6,549,871	25,441,327	9,547,319	9,018,388
" 27,...	63,025,191	8,562,175	6,284,268	24,030,776	9,593,545	8,727,348
Feb 3, ..	62,628,793	8,529,483	6,260,299	23,500,321	9,727,783	8,766,415
" 10,...	62,340 600	8,514,600	6,616,000	22,784,700	9,892,600	8,965,500
" 17,...	62,587,788	8,410,890	6,469,309	22,034,794	9,653,725	8,315,887
" 24,...	62,053,640	8,341,588	6,580,205	21,515,228	9,625,869	8,644,360
Mar. 3,...	61,678,500	8,364,500	6,318,700	21,208,500	9,681,500	8,982,600
" 10, ..	61,834,500	8,409,535	6,693,139	20,740,208	9,906,110	8,450,721
" 17,...	61,747,000	8,471,000	6,364,800	20,554,000	9,790,000	7,981,000
" 24,...	61,655,420	8,441,058	6,219,512	20,326,087	9,715,256	7,669,531
" 31,...	61,360.789	8,441,196	5,908,272	19,975,018	9,434,782	6,978,527
Apr. 7,...	61,208,974	8,674,170	6,557,152	21,014,000	9,245,088	8,133,124

Date.	Loans.	Specie.	Circulation.	Deposits.	Due to banks.	Due from banks.
Apr. 14,...	61,058,969	8,688,573	6,170,383	21,009,010	8,949,259	7,173,374
" 21,...	61,019,787	8,679,356	5,924,906	21,570,017	8,529,277	6,946,164
" 28,...	60,441,452	8,666,797	5,500,396	22,402,134	8,493,004	7,813,530
May 5,...	59,805,545	8,593,990	5,453,815	23,823,199	8,655,206	9,898,508
" 12,...	59,521,251	8,422,738	5,537,937	24,827,121	9,197,744	11,755,589
" 19,...	60,059,635	8,304,534	5,602,844	25,792,916	9,614,737	13,105,350
" 26,...	60,266,275	8,108,695	5,503,756	26,264,656	10,029,198	13, 95,636
June 2,...	60,677,367	8,089,723	5,848,138	26,730,486	10,226,491	13,924,896
" 9,...	62,059,198	7,983,425	5,696,413	26,277,021	10,610,702	12,888,043
" 16,...	62,591,341	7,894,899	5,875,612	25,602,048	10,632,170	11,884,692
" 23,...	63,056,262	7,850,634	6,159,115	25,994,738	10,644,000	12,122,000
" 30,...	63,638,999	7,8014,87	6,131,019	26,237,754	10,678,205	12,265,781
July 7,...	64,590,268	7,934 037	6,943,827	26,868,862	11,686,142	13,869,180
" 14,...	65,635,000	7,978,000	7,091,000	26,685,000	12,675,700	13,624,000
" 21,...	65,939,168	7,980,780	6,840,474	26,808,242	13,436,486	14,060,762
" 28,...	66,168,806	7,963,696	6,618,160	26,698,825	13,583,589	13,197,239
Aug. 4,...	66,836,729	7,966,702	6,633,822	27,315,402	14,013,524	13,473,620
" 11,...	67,508,527	7,967,761	6,768,178	26,816,409	14,409,359	12,379,978
" 18,...	68,284,988	7,975,427	6,778,260	26,572,677	14.854,778	12,566,167
" 25,...	68,843,323	8,055,402	6,772,215	26,791,827	15,690,425	13,231,313
Sept. 1,...	69,130,636	8,043,888	6,815,923	26,646,647	15,951,097	13,105,871
" 8,...	69,788,676	8,006,695	7,065,156	26,942,687	15,982,000	13,106,000
" 15,...	69,958,000	7,968,000	7,153,000	26,140,600	17,683,000	13,902,000
" 22,...	70,332,897	7,968,546	7,289,383	25,970,904	17,594,158	13,585,410
" 29,...	70,081,686	7,970,332	7,243,967	26,397,325	17,333,395	13,921,286
Oct. 6,...	71,043,500	7,991,580	7,616,044	28,166,155	17,805,000	14,961,700
" 13,...	71,226,581	7,977,116	7,949,524	28,673,721	17,036,000	14,960,700
" 20,...	72,553,000	7,842,700	7,832,000	29,316,000	17,868,700	14,555,000

PROVIDENCE BANKS. (*Capital, Jan.*, 1862, $15,454,600.)

Date.	Loans	Specie.	Circulation.	Deposits.	Due to banks.	Due from banks.
Jan. 11, ...	$19,356,800	$408,700	$1,889,600	$3,054,600	$1,099,800	$915,400
" 18, ...	19,238,700	402,900	1,890,300	2,899,200	1,071,500	898,500
" 25, ...	19,160,600	394,700	1,756,500	2,899,600	959,400	1,057,400
Feb. 1, ...	19,160,600	394,700	1,811,100	2,950,500	871,800	925,500
" 8, ...	19,087,700	395,900	1,814,300	2,915,200	900,400	934,700
" 15, ...	19,109,400	394,800	1,784,000	2,762,200	911,100	1,081,000
" 22, ...	18,869,800	396,800	1,879,100	2,792,700	893,900	1,180,000
Mar. 1, ...	18,920,500	407,500	1,791,200	2,924,400	953,900	1,283,000
" 8, ...	18,953,900	405,100	1,973,500	3,030,600	1,131,500	1,598,800
" 15, ...	18,998,600	408,500	1,848,100	2,946,800	1,103,200	1,484,300
" 22, ...	19,148,400	408,300	1,879,200	3,060,990	1,085,000	1,407,700
" 29, ...	19,360,500	411,300	1,857,100	3,078,800	1,021,000	1,165,400
Apr. 5, ...	19,641,000	417,500	2,102,000	3,124,000	1,115,500	1,063,200
" 12, ...	19,719,200	416,600	2,036,300	3,017,700	1,081,000	894,800
" 19, ...	19,644,500	408,600	1,953,400	3,015,900	1,020,400	845,400
" 26, ...	19,620,300	413,700	1,877,200	3,123,500	948,400	961,200
May 3, ...	19,538,410	417,378	1,979,828	3,134,601	950,430	1,156,072
" 10, ...	19,070,200	410,300	1,969,400	3,164,700	1,132,500	1,714,400
June 7, ...	19,236,100	395,600	2,016,600	3,342,400	1,653,000	2,101,900
" 14, ...	19,641,600	388,500	2,182,700	3,274,600	1,666,500	1,818,200
" 21, ...	19,827,500	385,500	2,324,900	3,153,600	1,627,500	1,744,400
" 28, ...	20,235,500	383,400	2,510,500	3,283,200	1,873,500	1,753 700
July 5, ...	20,588,800	382,100	2,888,300	3,531,500	1,763,900	1,858 800
" 12, ...	20,416,400	388,000	2,953,800	3,183,100	1,744,600	1,796,600
" 19, ...	20,494,600	384,800	2,980,200	3,347,300	1,918,500	2,023,400
" 26, ...	21,078,400	376,400	3,143,100	4,282,200	2,061,800	2,150,200
Aug. 16, ...	21,051,000	367,600	3,086,700	3,780,500	1,646,200	1,927,500
" 23, ...	21,119,500	363,300	3,102,000	3,569,900	1,804,600	2,090,700
Sept 6, ...	21,279,200	355,700	3,394,200	3,704,200	1,844,800	1,683,300
" 20, ...	21,804,200	35,690	3,484,300	3,731,600	1,710,800	1,642,300
Oct. 11, ...	22,197,400	379,000	4,006,600	4,066,000	1,751,100	1,859,900

BANK OF ENGLAND.

WEEKLY STATEMENT.

The returns of the Bank of England the past month, show a regular decrease in bullion each week:

For the week ending September 10	decrease	£213,682
" " " 17		245,785
" " " 24		199,011
" " October 8		400,981
Total decrease from September 10 to October 8		£1,059,559

The other changes are immaterial.

Date.	Circulation.	Public Deposits.	Private Deposits.	Securities.	Coin and Bullion.	Rate of Discount.
Jan. 1.. .	£20,818,190	£7,345,833	£15,036,062	£30,419,730	£15,961,439	3 pr. ct.
" 8....	21,086,675	4,542,974	18,206,488	31,022,505	16,046,017	2½ "
" 15....	21,460,925	4,583,353	16,480,452	29,509,864	16,291,626	2½ "
" 22....	21,697,928	5,467,340	15,366,081	29,464,720	16,350,939	2½ "
" 29....	21,183,376	5,753,063	14,751,486	28,696,456	16,280,369	2½ "
Feb. 5....	21,427,554	5,788,441	14,179,917	28,834,352	15,956,903	2½ "
" 12....	21,286,312	4,884,989	15,526,334	29,010,241	16,042,949	2½ "
" 19....	20,772,726	5,897,144	15,085,843	28,771,812	15,894,405	2½ "
" 26....	20,736,715	5,762,849	14,989,742	29,024,962	15,749,065	2½ "
Mar. 5....	21,217,246	6,755,287	13,737,507	29,692,441	15,673,898	2½ "
" 12....	20,013,685	7,527,911	13,763,718	29,489,795	16,027,111	2½ "
" 19....	20,483,509	8,011,694	13,340,928	28,953,089	16,548,586	2½ "
" 26....	20,814,655	8,413,275	13,154,258	29,140,207	16,812,798	2½ "
April 2....	21,501,595	8,456,468	13,622,532	30,398,790	16,849,198	2½ "
" 9....	21,822,105	5,625,314	16,336,169	29,981,793	16,881,940	2½ "
" 16....	22,048,463	5,225,132	15,710,260	29,325,888	16,743,434	2½ "
" 23....	21,655,553	5,534,973	15,915,247	29,022,128	17,172,204	2½ "
" 30....	21,946,997	6,867,375	14,357,007	29,164,075	17,089,446	2½ "
May 7....	21,752,884	7,503,991	13,866,643	28,961,214	17,265,745	2½ "
" 14...	21,618,780	6,304,683	14,948,308	29,076,079	16,919,147	2½ "
" 21....	21,539,430	6,557,811	14,567,671	29,433,044	16,344,940	3 "
" 28....	21,265,561	6,937,808	14,685,087	29,824,704	16,178,815	3 "
June 4....	21,515,263	7,518,007	13,188,136	29,841,864	15,489,723	3 "
" 11....	21,329,641	8,825,516	13,156,662	31,396,492	15,036,100	3 "
" 18....	21,076,059	9,322,949	13,085,271	31,342,547	15,268,453	3 "
" 25....	21,172,057	9,629,594	13,399,245	31,424,661	15,909,638	3 "
July 2....	22,242,361	9,672,845	13,851,869	32,709,039	16,220,771	3 "
" 9....	22,504,490	5,429,939	17,199,715	31,287,912	17,055,537	2½ "
" 16....	23,085,409	5,223,380	17,063,630	30,942,358	17,671,890	2½ "
" 23....	22,942,503	5,291,213	17,202,923	30,631,501	18,060,617	2 "
" 30 ...	22,933,086	5,895,840	16,903,068	30,542,050	18,448,443	2 "
Aug. 6....	23,378,393	6,157,358	15,232,959	30,162,297	17,956,938	2 "
" 13....	22,920,727	6,838,546	14,594,854	29,929,352	17,778,846	2 "
" 20....	22,900,555	7,150,252	14,568,007	30,309,703	17,674,604	2 "
" 27....	22,079,890	7,508,882	14,865,006	30,106,295	17,678,698	2 "
Sept. 3....	22,348,918	7,671,934	14,978,470	30,808,748	17,825,220	2 "
" 10....	21,895,385	8,768,329	13,809,643	30,504,527	17,611,538	2 "
" 17....	21,610,987	9,074,279	13,733,905	30,700,116	17,365,753	2 "
" 24....	21,300,731	9,268,106	13,825,230	30,874,552	17,166,742	. "
Oct. 1....	22,365,351	8,486,834	13,595,337	31,140,897	16,949,137	. "
" 8....	22,137,670	8,333,779	13,530,122	31,101,260	16,548,156	. "

The subjoined table will be found of interest, affording a comparative view of the bank returns, the bank rate of discount, the price of consols, the price of wheat in London, and the leading exchanges during a period of

three years, corresponding with the date of the last returns (October 8th, 1862) given above:

At corresponding dates with the week ending October 8, 1862.	1860.	1861.	1862.
Circulation	£22,112,936	£21,674,563	£22,137,670
Public deposits	6,583,944	4,893,914	8,333,779
Other deposits	12,813,771	12,028,835	13,530,122
Government securities	9,663,460	10,733,123	11,252,556
Other securities	19,582,595	17,440,363	19,751,704
Reserve of notes and coin	8,547,308	7,859,634	9,828,331
Coin and bullion	15,425,613	14,141,519	16,548,156
Bank rate of discount	4 p. c.	3½ p. c.	2 p. c.
Price of consols	93	92⅝	94
Average price of wheat	58s 3d	57s 0d	51s 1d
Exchange on Paris (short)	25 12½ 20	25 30 37½	25 17½ 25
Amsterdam "	11 14½ 14⅝	11 19 19½	11 15 15½
Hamburg (3 months)	13 5⅝ 6¼	13 10 10½	13 7½ 8

BANK OF FRANCE.

MONTHLY RETURNS.

We give this month, and shall hereafter continue to give, the monthly returns of the Bank of France. It will be seen that, compared with last month, there is evidently an increased demand for money. The recent large advance on the Bourse in all securities, and especially in Credit Mobilier shares—in the latter, more than 200 francs in a fortnight—will perhaps be considered sufficient cause for the additional demand. The following alterations will be noted:

An increase in bills discounted of...francs	65,734,383
An increase in circulation	31,006,150
An increase in deposits	9,558,789
A decrease in specie	29,642,847

We also give for comparison the returns of a year ago:

(*Capital*, 182,500,000 francs.)

	Circulation. Francs.	Cts.	Specie. Francs.	Cts.	Commercial bills discounted. Francs.	Cts.	Deposits. Francs.	Cts.
April, 1862,...	839,399,825	.	416,055,202	33	563,797,882	74	188,389,542	5
May	818,843,325	.	416,761,840	61	489,132,252	98	181,765,440	78
June	760,461,075	.	416,637,648	2	486,477,069	26	190,365,272	46
July	794,113,175	.	972,221,960	5	547,683,539	73	217,500,654	30
August	782,429,125	.	384,952,389	6	503,444,419	47	200,103,641	12
September	761,215,625	.	371,512,263	60	460,295,713	18	166,208,671	2
October	792,221,775	.	341,869,316	62	526,080,096	5	175,767,460	53
October, 1861..	766,489,725	.	304,761,228	12	579,835,336	36	145,233,242	14

FRENCH BUDGET OF 1863.

A report from M. Fould, Minister of France, to the Emperor, on the financial situation of France, was published during the first week of October. The correspondence of the London *Economist* referring to it, states that the Minister begins by speaking of the Budget of 1863. He says that, "owing to the additions made to certain taxes, and to modifications in others, the Budget of that year will present an excess of receipts of 8,360,041 francs (£334,400;) but he admits that this sum is not sufficient to guarantee the

equilibrium and provide for unforeseen necessities." He, however, calculates that the yield of indirect taxes will be considerably greater than the 1,104,370,000 francs for which they are set down in the Budget, especially as the inconvenience caused by the bad harvest of 1861 will have terminated; and should the war in America cease, and so put an end to the suffering occasioned by the want of cotton and the loss of trade, he even calculates on being able to provide for the expenses of the expedition to Mexico. With regard to the Budget of the present year, it was, he says, voted with a surplus of 4,300,997 francs, but supplementary credits were afterwards accorded to the amount of 200,116,382 francs, so that a sum of 195,815,385 francs (£7,832,616) had to be provided. The Minister gives a detail of the items composing this total. Among them are 50,512,190 francs to the Ministry of War, 75,690,816 francs to the Ministry of Marine, and 4,165,000 francs for "obligatory expenses," but what those expenses are he does not state. He then gives the following detail of the manner by which he expects to be able to provide for the payment of this large sum of 195,815,385 francs:

Augmentation in direct taxes.....francs	4,713,000
" in revenue from forests.....	3,304,000
" in indirect taxes.....	20,000,000
Addition to registration and stamp duties for six months	19,350,000
" to sugar duties for six months.....	18,420,000
Reserve of the sinking fund.....	1,069,000
Indemnity from China.....	10,000,000
Payment by Spain	25,000,000
Balance of the loan of 1855 for works for preventing inundations.....	2,000,000
Balance of the loan of 1859, and of consolidations of the dotation of the army.....	42,330,000
	146,186.000
Deduct anticipated decline in the revenues of Algeria..	4,894,000
	141,292,000

But this sum is less by 54,523,385 francs than the 195,815,385 francs required. "As, however," says the Minister, "the new mode of paying the dividends of the three per cent stock will leave disposable in the chapter of the debt a sum of 35,000,000 francs," and as about an equal sum will be saved by annulments of credits accorded, he will have, he says, "70,000,000 francs to place opposite the 54,000,000 francs which are wanting, and to provide for the miscalculations which may arise in the latter months of the year." The manner in which the first 35,000,000 francs will be gained is, perhaps, a little singular. The dividends of the three per cent stock having been made payable quarterly instead of half-yearly, the government, in place of paying 70,000,000 francs in December, as it used to do, pays one-half on the 1st of October and the other half on the 1st of January. It is thus able to throw over to next year what is really due for this, and what, but for the change referred to, would have been paid in this. If the dividends had been made payable the 31st of December instead of the 1st of January, M. Fould would have been minus 35,000,000 francs—a difference

of four-and-twenty hours saves him. But may we not regard this as a mere juggling with figures rather a *bona fide* provision for a deficit?

The minister next mentions various matters. The first is that *decouverts* (all that is due) which at the end of 1860 were 848,000,000 francs, rose on the 1st January, 1862, to 1,024,503,000 francs, but have since been reduced to 867,000,000 francs, by the employment of 157,000,000 francs received by the government in the conversion of the four-and-a-half per cent stock into threes, for the difference in value between the old stock and that given in exchange. (The 157,000,000 francs are round figures, as in a subsequent part of the report the amount received is stated at 157,631,289 francs.) Of the 867,000,000 francs, a sum of 865,839,048 francs is represented by what is called floating debt—in other words, by treasury bills and other securities given by the government. The minister states that the Bank of France on the 1st of July last placed at the disposition of the government 35,000,000 francs, which, after deducting 25,000,000 francs due by the government to the bank, made up the 60,000,000 francs which the latter was bound to advance without interest for the renewal of its privilege. With respect to the conversion, the minister says that of 174,151,366 francs rente to be converted (interest is meant, not capital,) 134,914,481 francs were actually converted, and that for that measure 160,431,289 francs were to be, or are to be, paid to the government. But the expenses of the operation for "printing, supplementary clerks, commission, discount, and other expenses," was about 2,800,000 francs, so that there remains for the treasury 157,631,289 francs. The sum of 2,800,000 francs is such a large one that an account of the items comprising it would have been desirable; the public in particular would like to know the amount of the commission, and to whom it went; but on these points M. Fould is silent. The portion of the rente unconverted is only 39,236,885 francs, and about half of it cannot be touched on account of legal obstacles. "The rest," says M. Fould, "forms so small a part of the public debt, and is so easy to assimilate, that it cannot present any impediment to the elevation of the threes, the price of which is now the undisputed regulator of our credit. The principal object of the operation," he adds, "is therefore attained, and the remodelling of the debt, which amounted to more than 3,500,000,000 francs in capital, has been made without any shock and without any serious difficulty, although it had to encounter certain political embarrassments. The re-classification of the *rentes* which passed from the hands of the old proprietors to those of the speculators seems complete. The influence of the conversion," he continues, "has been considerable. It has been felt in all securities without injuring the three per cent stock, the average price of which, without injuring the three per cent *rente*, was in the first months of the year above the average price of the same period in the preceding year. Other securities, such as shares of the bank and of financial and railway companies, have risen in a much larger proportion, and have consequently added a very large sum to the national wealth. The measure has also facilitated the execution of great public works and the completion of the network of railways, by permitting companies to place more easily and at a higher rate the debentures which they are authorized to issue." The minister next refers to the thirty years railway bonds. He says that out of 675,100 issued, 604,618 have been exchanged for three per cent stock, and "as the *rente* given in exchange," he adds, "is not provided with a special sinking fund, it has been possible to reduce the expenses

of the public debt for 1863 by a sum of 4,245,000 francs, which has facilitated the abandonment of certain taxes which were proposed." In conclusion, the minister says that the financial situation may be thus summed up: Reduction of deficits previous to 1862 by 157,000,000 francs; no deficit for 1862; and a reserve which may be estimated at 80,000,000 francs for 1863.

BANKS OF WISCONSIN.

The following is an extract of the report of Hon. Wm. H. Ramsey, Bank Controller of Wisconsin, made October 1st:

The following stocks have been decreased since statement of September 1st, 1862, viz:

Virginia 6s	$4,000	Tennessee 6s	22,000
Louisiana 6s	6,000	North Carolina 6s	34,000
Illinois 6s	26,490	New York 6s	3,090
Michigan 6s	12,000	Georgia 6s	500
Ohio 6s	3,000	Louisiana 5s	1,000
California 7s	22,000		
Missouri 6s	42,000	Total	$175,990

The following stocks have been increased since statement of September 1st, 1862:

Wisconsin 6s	$64,700
United States 6s	123,000
" 7 3-10s	67,000
Total	$254,700
The circulation has been increased during last month	208,278

The whole amount of circulation outstanding is—

Par banks	2,001,441
Discredited banks	163,810
Winding up	84,123
Total	$2,249,374

The following banks have gone into operation since last report: Merchants' and Milwaukee County Bank, located at Milwaukee; also Bank of La Crosse, located at La Crosse.

FINANCES OF VERMONT.

From the message of Governor Holbrook, of Vermont, to the Legislature of that State, it appears that the receipts for the fiscal year ending September 1, 1862, were $1,442,509, and the disbursements $1,218,250, leaving a balance in the treasury of $224,250. The liabilities of the State on September 1, were $1,164,977, and the resources $552,868, of which $234,988 is a balance due from the United States. The indebtedness of the State in excess of its resources is funded in State bonds, payable in ten years from June 1, 1860. The expenses of the current year are estimated at $1,334,839.

BANKS OF ILLINOIS.

The Bank Commissioner's official statement of the scurities and circulation of the banks of Illinois, as they existed on Monday, the 15th day of September, 1862, is as follows:

Illinois 6s	$320,900 00
Illinois and Michigan Canal	151,583 33
Illinois new Internal Improvement Stock	65,649 00
United States 5s	15,000 00
Ohio 6s	6,000 00
Missouri 6s	4,000 00
North Carolina 6s	2,000 00
Total	$574,532 33
Circulation	511,280 00

DEBT OF MEXICO.

The amount of Mexico's debt to England, France, and Spain is as follows:

The two loans contracted in London, in 1824 and 1825 represent, with the interest accruing	$62,264,332
The English Convention	5,000,000
The French Convention	150,000
The Spanish Convention	6,563,000
Interest on the latter	1,246,000
Total	$75,224,332

The domestic debt amounts to $21,725,572, making the whole public liability amount to nearly $97,000,000.

If, to the exact sum of the above liabilities, we add $52,141,839 of the Peza and Jecker bonds, issued by MIRAMON and ZULOAGA, we have a general total of $149,091,474.

TAXATION OF GOVERNMENT SECURITIES—LEGAL DECISION.

The Supreme Court, General Term, in New York, before Judges INGRAHAM, CLERKE, and BARNARD, rendered the decision (Judge CLERKE dissenting) that all United States bonds, stocks, etc., issued before the passage of the act of Congress, September 7, 1862, which pronounced them exempt from taxation, are liable to taxation under a State assessment as personal property. The New York city banks hold about $12,000,000 of those which are liable to State taxation under this decision. But the court furthermore decided that all United States bonds, stocks, etc., issued after the passage of the said act of Congress on September 7th, 1862, are exempt from taxation or assessment by the State.

Of course, this case will be carried to the Court of Appeals, and we do not look upon this decision, therefore, as of any importance, being only the conclusion of a part of the judges in *one* district of the eight that compose the Supreme Court of the State of New York.

THE BALANCE OF TRADE.

The present high rates obtained for gold and exchange is thus referred to, and in a measure accounted for by the *Journal of Commerce:*

"The total imports of foreign merchandise at New York from January 1st to the close of last week amounted to $138,105,422 as per Custom-house value, while the exports for the same time amounted to $109,518,220 in produce, and $43,556,214 in specie, making a total of $153,074,434 in exports against only $138,000,000 in imports. If the other ports taken together give an equal amount of imports and exports, so that the balance of trade is left for this port to settle, it will be seen that there is about $15,000,000 in our favor. If this were the true balance, and no other causes interfered, there could be no reason for an active demand for bills of exchange at a rate so far above the value of our paper currency. It is evident, therefore, that there is a large balance still to be remitted for on the other side.

"What then is this balance and how does it arise? We answer that a portion of it comes from the fact that there is now a legal undervaluation of foreign imports at the Custom-house. The appraisers are bound to fix the dutiable value of goods at the port of shipment, but this may not represent their cost as compared with our currency. Thus, a pair of blankets may be worth in England one pound sterling, and the appraisers agree with the importer in establishing that as the dutiable value. But how much is one pound sterling in federal currency? It is actually at present about $6.12 in our paper money; but according to law it is only $4.84, so that the returns of imports, being made by this arbitrary standard, are partly below the amount to be paid for the goods received, even exclusive of profits."

Such is undoubtedly a correct explanation; and when we take into the account the return of stocks held abroad, and the transmission from this country by the timid, of funds for deposit or investment in Europe, we will readily see sufficient cause for our being so largely in debt to Europe.

BANK OF ENGLAND—ACCESS TO THEIR BULLION ROOM.

A correspondent of the Birmingham *Post* tells the following strange story: "The directors of the Bank of England received recently an anonymous letter, stating that the writer had the means of access to their bullion room. They treated the matter as a hoax, and took no notice of the letter. Another more urgent and specific letter failed to rouse them. At length the writer offered to meet them in the bullion room at any hour they pleased to name. They then communicated with their correspondent through the channel he had indicated, appointing some dark and midnight hour for the rendezvous. A deputation from the board repaired to the bullion room, locked themselves in, and waited the arrival of the mysterious correspondent. Punctual to the hour a noise was heard below. Some boards in the floor were without much trouble displaced, and in a few minutes the Guy Fawkes of the bank stood in the midst of the astonished directors. An old drain ran under the bullion room, the existence of which had become known to him, and by means of which he might have carried away enormous sums. Nothing had been abstracted, and the directors rewarded the honesty and ingenuity of their anonymous correspondent—a working man—by a present of £300.

COMMERCIAL REGULATIONS.

1. Important Instructions to the Collectors. 2. Decisions on the Tax Law. 3. Real Estate Sales and the Tax Law. 4. Banks must take out Brokers' License to deal in Exchange. 5. Tax Law—Rectified Spirits, etc. 6. Stamp Duty on Bond and Mortgage. 7. Stamps on Checks and Drafts must be Cancelled by the Drawer. 8. Duties on Imports in Venezuela.

IMPORTANT INSTRUCTIONS TO THE COLLECTORS.

The collectors appointed under the recent act of Congress, to collect the national tax, are making their arrangements and will soon commence operations. The Commissioner of Revenue at Washington has just issued the following important regulations to the collectors at Philadelphia, which apply equally to collectors elsewhere:

1. All mechanics, except those who merely do repairs, must be registered as manufacturers, and must take out a license as such if their annual sales amount to $1,000.

2. But mechanics and other manufacturers who sell their own manufactures at the place where they are produced are not required to take out an additional license as traders. This does not include rectifiers, who must pay both licenses.

3. If manufacturers have an office, depot, store-room, or agency, at a place different from the place where the goods are made, or if they sell the manufactures of others, in addition to their own, they must pay a traders' as well as a manufacturers' license. Thus, a tobacconist who both makes cigars and keeps for sale goods in his line which he has purchased must take out both licenses. So must a druggist, who also makes patent articles, or medicines, &c., for which he has a private formula or receipt.

4. Persons keeping bar-rooms or saloons for the sale of liquors must take out a liquor dealers' license. If they also furnish food, they must, in addition, take out an eating-house license; and the sale of cigars, &c., requires a tobacconist's or retail dealer's license beside. Billiard tables require a special license, and bagatelle tables are reckoned as billiards.

5. Commission merchants, who are also ship or commercial brokers, are required to take out two licenses.

6. Grocers selling flour by the barrel, or salt by the sack, or any other article in the original package, are reckoned as wholesale dealers.

7. Stamps must be attached to the papers requiring them, at the time of their execution, and must be obliterated by the person writing his initials upon them. Telegraphic dispatches must be stamped and effaced when delivered to be transmitted. But railroad and telegraph companies are not required to stamp their own dispatches over their own lines.

8. Arrangements will be made with the collector of this district to supply stamps to parties desiring to purchase $50 worth or over, at the rates of discount established by the Treasury Department.

9. Notes and bills of exchange drawn for a certain sum, with interest, will be stamped according to the principal sum. Foreign currency will be estimated at the real par of exchange; the pound sterling, for instance, at the rate fixed for sovereigns, not at the nominal rate of $4 43\frac{3}{4}$, nor at the market rate of exchange, which is now something above the real par.

10. On and after October 1st the following instruments must be stamped: All agreements, appraisements, checks, sight drafts, promissory notes, inland and foreign bills of exchange, bills of lading to foreign ports, packages, &c., per express, bonds, certificates of stock, or profit, of deposit in banks, of damages, and all other certificates, charter parties, brokers, memorandums, conveyances, mortgages, leases, telegraph dispatches, custom house entries and manifests, policies of insurance—life, marine and fire, and renewals of same—passage tickets to foreign ports, powers of attorney, proxies, probate of wills, protest, warehouse receipts, and writs or other original process for commencing suit. Also, patent medicines, perfumeries, and playing cards.

In reference to public houses and liquor dealers exclusively, it is defined that in a tavern or public house where liquor is sold licenses must be taken for each business, the license for the tavern to be according to the rental, and the license for liquor in all cases of retail to be twenty dollars. By retail is understood any quantity under three gallons. To sell above that quantity is wholesale, and the license is one hundred dollars. Restaurants which furnish bedding, and which keep liquors, are required to obtain three licenses—first a tavern license, secondly a license for the liquor bar, of twenty dollars, and thirdly a license for the eating bar, costing ten dollars, when the receipts amount to or exceed one thousand dollars per year. Eating houses are permitted to keep confectionery without an additional license.

All dealers in liquor by retail are required to pay a license of twenty dollars per year. The penalty for refusal or failure to take out license is a fine of three times the amount of duty or tax imposed by the law, one-half of which goes to the informer. These taxes are, of course, in addition to the State and city licenses now imposed, and the accumulation of expenses will materially affect the smaller dealers who abound in every part of the city. The prosecution of delinquents is made imperative on the collectors, who hold the names and residences of all dealers, so that escape from the penalty is next to impossible.

DECISIONS ON THE TAX LAW.

Treasury Department, Office of Internal Revenue,
October 2d, 1862.

GENTLEMEN:—I have received your letter of the 24th inst., and reply to the several inquiries made therein as follows:

1. Persons who manufacture articles which are exempt from ad valorem duty, are not subject to license tax as manufacturers. The provision in section sixty-six relating to manufacturers, does not apply to them, and they are to be licensed as wholesale or retail dealers, as the case may be.

2. Bankers, who, besides their regular business as defined in the first article of section sixty-four, do business as brokers, as defined in article thirteen of the same section, should be licensed both as bankers and brokers.

3. Two or more lawyers in actual and legal partnership, require but one license for such partnership.

4. Butchers and others who retail meat in market places or stores, should be licensed as retail dealers; if they sell their meat from carts, going from house to house, a peddler's license is required for each cart thus employed.

5. The excise law became operative, with respect to legacies and distributive shares of personal property, upon its passage, July 1st, 1862.

6. Any person whom the assessor deems proper, may have the custody of the assessor's lists during the fifteen days they are to be open for public inspection.

7. Rectifiers, as defined in article eight, section sixty-four, are not required to pay an ad valorem duty on their products; but do require license as dealers in liquor in order to sell.

8. For a full discussion of the questions relating to the duty on manufactures removed from the place of manufacture prior to Sept 1st, I refer you to the opinion of the Solicitor of the Treasury herewith enclosed.

9. Where brewers run a small still to dispose of spoiled beer, merely as an incident to their legitimate and proper business, I think a distiller's license is not necessary.

10. The law does not authorize the revenue officers to administer oaths, except as provided in sections forty-eight and fifty-two. I agree with you that they should be so authorized, and I think that Congress will amend the law in this particular. In some instances, State authorities have given assistants this power, by appointing them notaries or justices of the peace.

11. Inspectors must obtain the necessary instruments for their business, and charge accordingly in their fees for inspection. I do not know where they are to be obtained.

12. The printed instructions, No. 2, give all the information respecting collector's seals that appears necessary.

13. The same instructions contain the required information respecting drawback.

I am, respectfully,
Your obedient servant,
GEO. S. BOUTWELL, *Commissioner.*

To Messrs. A. P. STONE, Collector 7th District, Ohio, R. M. W. TAYLOR, Collector 2d District, C. S. HAMILTON, Assessor 8th District, Committee.

REAL ESTATE SALES AND THE TAX LAW.

The following correspondence in relation to the operation of the tax law upon real estate is important:

No. 106 BROADWAY, N. Y., *October* 9.

To the Hon. the Commissioner of Internal Revenue:

SIR: Referees have many sales of real estate under foreclosure proceedings where there is a prior mortgage upon the property: and very often the amount bid is so much "over and above the prior mortgage," and in the referee's deed is inserted the amount of the bid, with the words, that "the property is conveyed subject to said prior mortgage."

Supposing the fact to be that a referee sells a lot of ground for $6,500, subject to and over and above a prior mortgage of $5,000. The deed names $6,500 as the consideration money, and also contains an announcement that the property is sold subject to said prior mortgage of $5,000. Now I desire to know whether the stamp duty is to be paid on the amount of the bid only, (viz. $6,500,) or on the amount of the bid, including the mortgage, (viz. $11,500.)

Again, by section seventy-six of the tax bill it is enacted that there shall

be levied, collected, and paid on all sales of real estate * * * at auction, a duty of 1.10 per centum on the gross amount of such sales—provided that no duty shall be levied under the provisions of this section upon any sales by judicial or executive officers making auction sales by virtue of a judgment or decree of any court.

I desire to be informed—

First—Whether the duty is to be charged on the amount of the bid, or on the amount of the bid including amount of the prior mortgage.

Second—Whether "referees" appointed by the court to sell in foreclosure or partition suits are considered by you as judicial or executive officers.

By giving this your immediate attention you will much oblige

Yours, respectfully, CHAS. H. HINNAU.

Treasury Department, Office of Internal Revenue,
Washington, October 13.

SIR: Your letter of the 9th inst. is at hand. You ask if a piece of ground is sold subject to a mortgage on what amount must the stamp duty be paid. I answer, upon the amount of the *consideration named* in the deed—any fraud in naming the amount would invalidate the instrument.

Your second inquiry upon sales of mortgaged real estate at auction is upon the same principle. The tax on the sale will only be required on the amount bid and paid over the mortgage.

I am of opinion that "referees" appointed by the court to sell in foreclosure or partition suits cannot be regarded as judicial or executive officers.

Very respectfully, GEO. S. BOUTWELL, *Commissioner.*

CHAS. H. HINNAU, Esq., 106 Broadway, N. Y.

BANKS MUST TAKE OUT BROKERS' LICENSES TO DEAL IN EXCHANGE.

The following correspondence between Messrs. ROCHESTER, bankers of Rochester, N. Y., and Commissioner BOUTWELL, settles the question as to the licenses required by bankers and brokers to enable them to transact business under the tax law:

Office of John H. Rochester & Brother,
Bankers, Rochester, N. Y., Oct. 8.

Hon. GEO. S. BOUTWELL, *Commissioner of Internal Revenue, Washington, District of Columbia:*

DEAR SIR: In section 64 of the tax bill, clause 1, bankers are charged $300 license; in clause 13 brokers are charged $50, and in clause 15 land warrant brokers are charged $27.

Is it intended that parties whose business includes all these branches shall pay for each license, or does the greater include the less, and is a person taking out a license as a banker, and paying $100 therefor, entitled to engage in the other branches of the business alluded to without paying for additional licenses?

We ask these questions because we presume there is not a single banker in the country who is not also a broker, as defined by the tax bill, and very many of them are also land warrant brokers.

Are incorporated banks, who pay no license, entitled to deal in coin, currency, or exchange, or any of them, that is, by purchase and sale at a premium or discount? Respectfully,

JNO. H. ROCHESTER & BROTHER.

Treasury Department, Office of Internal Revenue, Washington, Oct. 11.

GENTLEMEN: In answer to your communication of the 8th instant, I must say that parties doing business as bankers, brokers, and land warrant brokers must take three licenses. See section 61, excise law.

Incorporated banks dealing in coin, currency, and exchange are subject to license as brokers. Very respectfully,

(Signed) GEORGE S. BOUTWELL,
Commissioner of Internal Revenue.

Messrs. JOHN H. ROCHESTER & BRO., *Rochester, N. Y.*

TAX LAW—RECTIFIED SPIRITS, ETC.

Office of Collector of Internal Revenue, Fourth District, State of New York.
NEW YORK, 85 Franklin Street, *October* 9, 1862

SIR: 1. * * * Must rectified spirits be inspected after being rectified, in those cases in which the article rectified had been inspected before it was subjected to the process of rectifying?

2. Are rectified spirits subject to any and what duty, after being rectified, in those cases in which a duty shall have been paid upon the article rectified before it was subjected to the rectifying process?

3. A large distinct business is done in the manufacture of "cordials," but the article is not specifically named or provided for in the act. Cordials being made in good part of spirits, may, I think, be properly considered as embraced in the definition of a "rectifier" in subdivision eight of section 64 of the act, and be subjected to the same duty or tax. The provisions of the law requiring inspection would not, however, it seems to me, apply to the manufacture of cordials.

Am I right in this view of the business?

4. The manufacture or distillation of syrups—lemon, sarsaparilla, etc.—is also a large business which is not provided for by name in the law. Being made from sugar or saccharine matter, mixed with other materials, they may, I think, be properly considered as a "manufacture," and be taxed as such, under the clause or paragraph of section 75, commencing "on all manufactures of cotton," &c., or of other materials *not in this act otherwise provided for*, "a duty of three per centum ad valorem." Is this opinion of the liability of the article correct?

5. Under the peculiar conjunctive phraseology of section 77, declaring that from and after the first day of May, 1862, there shall be levied, collected, and paid by any person or persons owning any carriage, yacht "*and*" billiard table, the several duties, etc., set forth in schedule A, can a duty be demanded from a person who keeps for use *only a carriage* or *carriages*, of the kind designated, and *no yacht* and *billiard table*, and so also as to the owner of a yacht or billiard table only? Or will the word "*and*" in the law be read by intendment "*or?*"

6. Are persons who purchase foreign imported cloths, silks, muslins, laces, or other dutiable articles, and cut up and convert the same into garments or articles of wearing or personal apparel and offer them for sale to an amount exceeding annually $1,000, to be considered "*manufacturers*," and taxed three per centum on the amount of their stock of such garments or articles of personal apparel? or, under the *proviso* of section 75, which declares "That on all cloths, etc., manufactured into other fabrics, etc., on which a duty shall have been paid before the same were so * * manufactured, etc., the tax of three per centum shall be assessed only upon the increased value thereof? Ought this duty of three per cent to be assessed only upon the *increased value* of the stock manufactured into personal apparel by the class of persons referred to?

I am, Sir, very respectfully, your ob't servant,

JOHN MACK, *Collector Fourth District.*

To Hon. GEO. S. BOUTWELL, *Com. Internal Revenue.*

Treasury Department, Office of Internal Revenue,
October 13, 1862.

SIR: Your letter of the 9th inst. has been received. 1 and 2. Your first and second questions are answered by my decision of the 6th inst., according to which the basis for calculating the amount of license duty that a rectifier of liquor is subject to, under the internal revenue law, is the *number of barrels* or casks containing not more than forty-nine gallons each *produced* by the process of rectification, and *not on the quantity of proof liquor used.* Rectifiers will keep a record of the quantity of liquor produced, and will be required to make a monthly return of the same to the assistant assessor, subscribed and sworn, and pay the amount of license tax accrued thereon when required by the collector.

It follows that the article rectified, before it was subjected to the rectifying process, need not be regarded by the collector, who has simply to exact a rectifier's license, according to the quality of liquor rectified.

3. You are right in considering the manufacture of cordials as embraced in the definition of subdivision 3 of section 64.

4. The manufacture of "syrups"—lemon, sarsaparilla, etc.—is to be considered as a "*manufacture*" under the clause which you quote, and to be taxed three per centum ad valorem.

5. Section 77, in speaking of "any person or persons owning, possessing, or keeping any carriage, yacht, and billiard table," is to be interpreted as referring to three different classes of owners, viz: Such as possess *any* carriage; *and*, as a second class, such as possess *any* yacht; *and*, as a third class, such as possess *any* billiard tables. If you read the passage thus, your scruples with regard to the interpretation of the word "*and*" will disappear. It is, I believe, in strict accordance with grammar and usage to employ it thus, with the force of "*or.*"

6. Your sixth question is answered by this department, that manufacturers of clothing are required to pay duty on the whole value of goods manufactured by them, and not on the *increased value* of their goods over the value of the cloth. This principle holds good generally, with regard to all manufactures. The exceptions are found in section 75.

I am, Sir, very respectfully,

GEO. S. BOUTWELL, *Commissioner.*

JOHN MACK, *Collector Fourth District.*

STAMP DUTY ON BOND AND MORTGAGE.

The following letter from the Commissioner of Internal Revenue has been received in answer to an inquiry:

Treasury Department,
Office of Internal Revenue, Oct. 11.

SIR: Your letter of the 9th instant has been received. A separate stamp is required for each document—one for the bond and another one for the mortgage. I am, very respectfully,

GEO. S. BOUTWELL, *Commissioner.*

To ISAAC BUTTS, Esq., *Rochester, N. Y.*

STAMPS ON CHECKS AND DRAFTS MUST BE CANCELED BY THE DRAWER.

The following is another important decision under the Internal Revenue law:

Treasury Department, Office of Internal Revenue,
Washington, October 23, 1862.

I would say that when the maker of a check, draft, note, or any other document shall neglect to put on the required stamp, it will not do for the party receiving the same to affix the stamp and cancel it, but it must be returned to the maker for him to do it.

GEO. S. BOUTWELL, *Commissioner.*

DUTIES ON IMPORTS IN VENEZUELA.

Department of State, Washington, Oct. 15.

The following decree, received from the United States consulate at Maricaibo, Venezuela, imposing twenty-five per cent additional duty on merchandise imported into that republic, is published for the information of those whom it may concern:

DECREE REQUIRING THE CUSTOM-HOUSE OF THE REPUBLIC TO COLLECT A DUTY OF TWENTY-FIVE PER CENT UPON THE ORDINARY DUTIES OF IMPORTATION.

I, JOSE ANTONIO PAEZ, Supreme Chief of the nation, do decree:

ART. 1. There shall be levied by the custom-houses of the republic a duty of twenty-five per cent upon the ordinary duties of importation, besides that of fifty per cent which is levied under the existing regulations.

ART. 2. The levying of this twenty-five per cent will begin and take effect within thirty days upon the imports which are paid from the Antilles; within sixty days upon those that are paid from the United States, and within ninety days for those that are paid from Europe.

These periods commence to run respectively from the publication of the present decree at the ports of the republic.

Given at the government palace, in Caracas, on this 18th day of August, 1862.

J. A. PAEZ, *The Secretary General.*
PEDRO JOSE ROJAS.

MERCANTILE MISCELLANIES.

1. The Late High Balloon Ascent at Wolverhampton. 2. An Amusing Historiette developed before the Paris Police. 3. Vicissitudes of Speculation. 4. Flower Leaves in France. 5. Currency Terms. 6. Death of a French Centenierer. 7. Hoarding the Precious Metals. 8. Common Sense in a Money Panic. 9. Looking Ahead. 10. Money Goes as it Comes. 11. Raymund Lully—Power to Make Gold. 12. Liberality in Business. 13. An Austrian Anecdote.

THE LATE HIGH BALLOON ASCENT AT WOLVERHAMPTON.

BY JAMES GLAISHER, ESQ., OF THE ROYAL OBSERVATORY, GREENWICH.

Ballooning has been turned to account and we preserve for our readers Mr. Glaisher's interesting narrative of his late ascent. In this he reached the greatest height attained by a native of our globe, and shows the limits at which human life appears to be capable of support: indeed his ballooning voyages of late, but especially this, will be preserved as the most interesting on many accounts that have ever been made.

On the earth at 1h. 30m. the temperature of the air was 59°, at the height of one mile it was 39°, and shortly afterwards we entered a cloud of about 1,100 feet in thickness, in which the temperature of the air fell to 36½°, and the wet bulb thermometer read the same, showing that the air here was saturated with moisture. On emerging from the cloud at 1h. 17m. we came into a flood of light, with a beautiful blue sky, without a cloud above us, and a magnificent sea of cloud below, its surface being varied with endless hills, hillocks, mountain chains, and many snow white masses rising from it. I here tried to take a view with the camera, but we were rising with too great rapidity, and going round and round too quickly to enable me to do so; the flood of light, however, was so great, that all I should have needed would have been a momentary exposure, as Dr. Hill Norris had kindly furnished me with extremely sensitive dry plates for the purpose..

When we reached two miles in height, at 1h. 21m., the temperature had fallen to the freezing point. We were three miles high at 1h. and 28m. with a temperature of 18°; at 1h. 39m. we had reached four miles, and the temperature was 8°; in ten minutes more we had reached the fifth mile, and the temperature had passed below zero, and then read −2°, and at this point no dew was observed on Regnault's hygrometer when cooled down to −30°.

Up to this time I had taken the observations with comfort. I had experienced no difficulty in breathing, whilst Mr. Coxwell, in consequence of the necessary exertions he had to make, had breathed with difficulty for some time. At 1h. 51m. the barometer reading was 11.05 inches, but which requires a subtractive correction of 0.25 inch, as found by comparison with Lord Wrottesly's standard barometer just before starting, both by his lordship and myself, which would reduce it to 10.8 inches, or at a height of about 5¾ miles. I read the dry bulb thermometer as −5°; in endeavoring to read the wet bulb I could not see the column of mercury. I rubbed my eyes, then took a lens and also failed.

I then tried to read the other instruments, and found I could not do so, nor see the hands of the watch. I asked Mr. Coxwell to help me, and he said, he must go into the ring and he would when he came down. I en-

deavored to reach some brandy which was lying on the table, at the distance of about a foot from my hand, and found myself unable to do so. My sight became more dim. I looked at the barometer, and saw it between 10 and 11 inches, and tried to record it, but was unable to write. I then saw it at 10 inches, still decreasing fast, and just noted it in my book; its true reading therefore at this time was about 9¾ inches, implying a height of 5¾ miles, as a change of one inch in the reading of the barometer at this elevation takes place on a change of height of 2,500 feet. I felt I was losing all power, and endeavored to rouse myself by struggling and shaking. I attempted to speak and found I had lost the power. I attempted to look at the barometer again; my head fell on one side; I struggled and got it right, and it fell on the other, and finally fell backwards. My arm, which had been resting on the table, fell down by my side. I saw Mr. Coxwell dimly in the ring; it became more misty, and finally dark, and I sank unconsciously as in sleep.

This must have been about 1h. 54m. I then heard Mr. Coxwell say, "What is the temperature? Take an observation. Now try." But I could neither see, move, nor speak. I then heard him speak more emphatically, "Take an observation. Now do try." I shortly afterwards opened my eyes, saw the instruments and Mr. Coxwell very dimly, and soon saw clearly, and said to Mr. Coxwell, "I have been insensible;" and he replied, "You have, and I nearly." I recovered quickly, and Mr. Coxwell said, "I have lost the use of my hands, give me some brandy to bathe them." His hands were nearly black. I saw the temperature was still below zero, and the barometer reading eleven inches but increasing quickly. I resumed my observations at 2h. 7m., recording the barometer reading 11.53 inches and the temperature –2. I then found that the water in the vessel supplying the wet-bulb thermometer, which I had by frequent disturbances kept from freezing, was one mass of ice.

Mr. Coxwell then told me that whilst in the ring he felt it piercingly cold, that hoar frost was all round the neck of the balloon, and on attempting to leave the ring he found his hands frozen, and he got down how he could; that he found me motionless, with a quiet and placid expression on the countenance; he spoke to me without eliciting a reply, and found I was insensible. He then said he felt insensibility was coming over himself, that he became anxious to open the valve, that his hands failed him, and that he seized the line between his teeth and pulled the valve open until the balloon took a turn downwards. This act is quite characteristic of Mr. Coxwell. I have never yet seen him without a ready means of meeting every difficulty as it has arisen, with a cool self-possession that has always left my mind perfectly easy, and given to me every confidence in his judgment in the management of so large a balloon.

On asking Mr. Coxwell whether he had noticed the temperature, he said he could not, as the faces of the instruments were all towards me: but that he had noticed that the centre of the aneroid barometer, its blue hand, and a rope attached to the car, were in the same straight line; if so, the reading must have been between seven and eight inches. A height of six miles and a half corresponds to eight inches.

A delicate self-registering minim thermometer read –12°, but unfortunately I did not read it until I was out of the car, and I cannot say that its index was not disturbed on descending. When the temperature rose to 17° it was remarked as warm, and 24° as very warm.

The temperature gradually and constantly increased to 57° on reaching the ground. It was remarked that the sand was warm to the hand, and steamed on being discharged.

Six pigeons were taken up—one was thrown out at the height of three miles, it extended its wings and dropped as a piece of paper; a second at four miles flew vigorously round and round, apparently taking a great dip at each time.

A third was thrown out between four and five miles, and it fell downwards.

A fourth was thrown out at four miles when descending; it flew in a circle and shortly alighted on the balloon.

The two remaining pigeons were brought down to the ground. One was found dead, and the other, a "carrier," had attached to its neck a note. It would not, however, leave, and when cast off the finger returned to the hand. After a quarter of an hour it began to peck a piece of ribbon by which its neck was encircled, and it was then jerked off the finger, and it flew with some vigor finally towards Wolverhampton. Not one however had returned when I left on the afternoon of the 6th.

To much praise cannot be given to Mr. Proud, the engineer of the gas works, for the production of gas of such a small specific gravity.

It would seem from these facts that five miles is very nearly the limit of human existence. It is possible, as the effect of each high ascent upon myself has been different, that in another I might be able to go higher, and it is possible some persons may be able to exist with less air and bear a greater degree of cold, but still I think prudence would say to all, whenever the barometer reading falls as low as eleven inches, open the valve at once, the increased information to be attained is not commensurate with the increased risk.

AN AMUSING HISTORIETTE DEVELOPED BEFORE THE PARIS POLICE.

In the presence of a wine merchant and his wife, two distinguished members of the *canaille*, SARIOL and TURBAN by name, entered into articles of copartnership for the purchase of a small keg of brandy, with the understanding that it was to be peddled out by the glass, at the fair of St. Denis, the annual fete of a village in the environs of the capital, the terms of the association being that the profits of the venture should be equally divided between the itinerant merchants. Everything was drawn up in due form, and among the various articles of the agreement, was one fixing the price of a "smaller" at four sous.

On the evening of the very first day that the partners commenced operations, both SARIOL and TURBAN were picked up by the police, in a most woful plight, their garments in rags, their eyes in deep mourning, and their scalps partially denuded of the capillary embellishments. Their financial situation may be summed up in two words—an empty keg and a copper coin of the value of two sous.

Appearing on the following morning before the police tribunal, charged with assault and battery and resistance to the public authorities, the following thoroughly Frenchy facts were elicited: The two speculators had duly started for the fair grounds at St. Denis, taking with them the keg of brandy. Upon arriving at the suburb of La Chapelle, SARIOL said to TURBAN, "TURBAN, my boy, I think I'll take a stiffener;" to which TURBAN replied, "Well,

I think that's cool, anyhow! You know, I s'pose, that that 'ere brandy isn't yours alone; it belongs to us both!" "That's so!" returned SARIOL, "and I'll tell you how we'll manage it; the price of a smaller is four sous, so I'll just give you two sous, and that'll make us square." "All right," said TURBAN, mollified, "that's fair enough." So SARIOL gave his partner a two sous piece and took his "stiffener."

The pair had gone but a short distance further when TURBAN suddenly remarked, "I think *I'll* take a rewiver now, myself." "Of course you mean to pay me two sous!" said SARIOL. "To be sure I do," answered the other. Whereupon he drank a glass of brandy, and handed back the copper. After plodding on another mile, SARIOL broke in with, "By Jingo, I go in for goods at half price! As a smaller costs me two sous instead of four, I'll take another!" To which TURBAN agreed at once, and again received the two sous piece. Five minutes afterward he told SARIOL that his logic was quite correct—two sous for a glass of grog was an unprecedently low price—took a drink, and once more returned the copper coin. And so it went on, at frequent intervals, until the pair at length reached St. Denis, congratulating themselves upon their happy discovery of brandy at half price. It is superfluous to remark that when they arrived, they were not particularly attentive to business, and were struck with the single idea that the more they drank the more money they made. Governed by this notion, they rapidly circulated the two sous piece, until the keg was at last found to be empty, whereupon TURBAN suddenly exclaimed—"Hallo, how's this! We bought six francs' worth of brandy, it's all out, and there's only two sous in the till!" "What d'ye mean by only two sous?" "That's all there is, my boy." "Then, by thunder, you've robbed the cash box!" This was the signal for a bout at fistcuffs, followed by the interference of the police, when the two partners turned their united forces against the officers, were overcome by superior numbers, captured, lodged in the nearest station house, examined the next morning, and sent to durance vile for eight days. No moral is necessary.—*Cor. New York Express.*

VICISSITUDES OF SPECULATION.

The New Bedford *Standard* says, that seven years ago parties in that vicinity purchased 2,600 barrels of whale oil at fifty-six cents per gallon, and stored it for speculation. Subsequently 600 barrels were withdrawn by one of the owners. The balance, 2,000 barrels, has been sold within a few weeks for forty-seven cents a gallon. During the period the oil has been held, the price has been as high as eighty-two cents a gallon, but the owners held on waiting for something a little better. The total loss, counting interest, depreciation, shrinking, &c., is between $40,000 and $50,000.

FLOWER LEAVES IN FRANCE.

In the South of France a harvest of two and-a-half million of pounds weight of flower leaves is gathered every year, and sold for about £250,000 sterling. It consists of 100,000 lbs. of leaves of the orange blossom, 500,000 lbs. of rose-leaves, 100,000 lbs. of jessamine blooms, 70,000 of violets, 65,000 of accacia buds, 30,000 of tube roses, and 5,000 of jonquil flowers.

CURRENCY TERMS.

The origin of the word sterling has been explained as follows in a correspondence of the *Transcript*:—

"Your correspondent refers to the pound *sterling*, or *easterling*, which word, I believe is commonly spelled *esterling*. Some of your readers may not be aware of the origin of the word *sterling*, about which antiquarians have doubted. The word *esterlings* may be found in Spelman's glossary. The word was first applied to English pennies, in the reign of Edward I., about the year 1279. Henry, in his History of G. B., vol. vi., page 297, London, 1814, says—'In the course of this period, the silver penny is sometimes called an *esterling* or sterling; and good money in general is sometimes called *esterling* or *sterling* money.' It is unnecessary to mention the various conjectures of antiquaries about the origin and meaning of this appellation. The most probable meaning seems to be this:—that some artists from Germany, who were called esterlings from the situation of their country, had been employed in fabricating our money, which consisted chiefly of silver pennies, and that from them the penny was called an *esterling*, and our money *esterling* or *sterling* money.

"I used to be puzzled to know why a certain coin was called a *milled* dollar. Antoine Brucher, a Frenchman, invented the '*mill*' for making money, and money was first struck with it, in 1553. It was brought into England by Philip Mestzel, and Elizabeth had *milled* money struck in England, in 1562. It was used in France, till 1585, and in England, till 1572, but gave place to the cheaper expedient of the '*hammer*;' which, in 1617, gave place to the engine of Belancier; which was merged in the great improvements of Boulton and Watt, at Soho, in 1788. In 1811, the art was brought to very great perfection, at the mint in London. One of the most interesting objects, at the present day, in Philadelphia, is the whole process of coinage, from first to last, from the crude California snuff, as it enters the melting pot, till it verifies the proverb and taketh the wings of an *eagle* and flieth away.

"The dollar mark ($) is derived from the use of the old Spanish pillar dollar, which was of very general circulation and known value, two pillars enclosed with an S became the cypher for a Spanish dollar."

DEATH OF A FRENCH CENTENIERE.

The oldest centeniere of the French army died a few weeks since at Issoudun, aged 94. Therese Jourdan, born at Besancon, in 1768, was married in 1783, to Jean Patru, who afterwards became sergeant in the 69th brigade. She accompanied her husband in the Italian campaigns of 1796 and 1797, under General Bonaparte. She next went to Egypt, was present at the landing of the army before Alexandria, then at the battle of the Pyramids, and at Kleiber's victory near the ruins of Heliopolis. After her return from the East, she was present at the battles of Austerlitz, Jena, Eylau, Friedland, and the campaigns on the Elbe, the Vistula, and the Niemen. She then followed the army into Spain and Portugal, whence she returned, and, going to Germany again, witnessed the battles of Essling and Wigram. In 1812, she followed the Grand Army to Russia, and was present at the battle of Moscow, where her husband fell in storming a redoubt. She came back to France with the remnant of the army,

and took part in the campaign of 1813; was at Bautzen and Leipsic, and at Waterloo in 1815. When the army was re-organized, she was attached to the 4th Regiment of the Line, and accompanied it to Spain, under the Duke d' Angoulême, in 1823. From 1830 to 1834, she was in Africa. In 1859, she went there again with the depot of the 4th Regiment, and remained till 1860. Such are the services of this extraordinary woman. She went to Issoudun with the depot of the 4th, the officers of which allowed her a pension, and she had rations with the men, who absolutely idolized her. She had survived all relatives, but never wanted for friends. She retained her faculties to the last, and died without pain. The whole battalion, 600 strong, attended her funeral, and a sergeant-major pronounced an oration over her grave.

HOARDING THE PRECIOUS METALS.

The Albany *Journal*, in view of the withdrawal of specie from the banks during the panic, has the following cleverly drawn hit for the "hoarders." It reminds us of a story told by a Philadelphia lawyer, of some eminence, now no more. He said the Dutch farmers in the interior of Pennsylvania were generally in the habit of hoarding their money. A farmer, who had laid by a large sum, the earnings of years, had his house broken into, and the money stolen. When asked by our friend, the lawyer, how much he lost, he said he did not know exactly, but that he had about a bushel of dollars, half a bushel of halves, and a peck of quarters, besides a considerable pile (when that bank was in its palmy days) of United States Bank bills.

"Now is the time when gold dollars are hid in old stockings. Now is the time when sixpences are tucked away in snub-nosed teapots. Now money is laid by in cupboards—for mice to nibble; thrust into corners—for thieves to rummage; carried in wallets—for pickpockets to grab at; hid behind the wood-work—for the next generation to find; and buried in the ground—to be lost and forgotten. Now men rush frantic to draw cash out of safe places, and put it into unsafe ones. Now poor families lose five per cent for the purpose of having their savings where they will keep them awake at nights. Now farmers hang up deposits in the shot pouch behind the door, housewives sew up gold pieces in their skirts, and travelers weigh themselves down with body belts of coin. Now the unprofitable servant, who hid his talent in a napkin, is canonized into a bright and shining scriptural example, while those who 'put their money to the exchangers,' are looked suspiciously upon, as rash speculators in Jewish fancy stocks. Now all money is distrusted but such as can be heard to chinck. Now men privily put all their cash under lock and key, and then publicly lament that it has ceased to circulate. Now men with well filled pockets refuse either to pay their debts or to forgive their debtors. Now the butcher must wait and the baker must go unpaid, and the printer must be put off for the nineteenth time. The era of hoarding has come round again with all its blind, unreasoning fears, and all its self-imposed curses of poverty, idleness, distrust, and decay."

COMMON SENSE IN A MONEY PANIC.

The *National Intelligencer*, in copying the annexed article from the Cleveland *Herald*, adds, that "circumstances familiar to almost every

reader in the country give to the subjoined remarks peculiar aptitude and force. When the ocean is in a tumult, and the storm pours out its fury, the humblest sailor in the ship feels that the safety of his fellow-voyagers is as much a matter of pride and humanity as his own. He perils all, and works manfully 'whilst a stick is left standing.' He never deserts the ship.

"Moneyed men are the veriest cravens on earth; so timid, that at the least alarm they pull their heads, turtle like, within their shells, and, snugly housed, hug their glittering treasury until all fear is removed. The consequence is, that a few days' disturbance of the monetary atmosphere brings on a perfect dearth of not only the precious metals, but of even paper money, their representative.

"Moneyed men never adopt the tactics of mutual support; as soon as a shot is fired into the flock, they scatter, each looking out for himself, each distrustful of the other, and each recognizing only the great law of selfishness, which is, to take care of number one. Courage has saved many an army even when ammunition was low, and many a foe has been scattered by one yell of defiance when there was not a cartridge left."

LOOKING AHEAD.

The Philadelphia *Commercial List* says:—"We once fell in with a business man, and he was a person of wide experience, too, who said that, whatever might happen to him, he always looked sixty days *ahead*, rather than sixty days *behind*. This was sensible, and there was profound philosophy in it. For the habit of looking on the dark side of matters soon begets a despondent feeling in the heart, and disinclines a man to make any exertion at all. To look forward to better days, however, and to a turn of fortune for better times, is naturally calculated to inspire one with enthusiasm, to stimulate one with the new wine of hope. It makes all imaginable difference whether a man desponds or hopes. Hence, when a blast of trouble comes, the true way is to turn your back upon it, to refuse to have anything to do with it, to forswear all connection with its threats or promises. Look ahead, and look up! what is gone, is gone; there is no help for it. Work for better fortune, and the bad will desert you in absolute disgust at your impressibility.

MONEY GOES AS IT COMES.

The Boston *Commercial Bulletin* says, very truthfully: "The young man who begins by saving a few shillings, and thriftily increases his store—every coin being a representative of good solid work, honestly and manfully done—stands a better chance to spend the last half of his life in affluence and comfort, than he who is in his haste to become rich, obtains money by dashing speculations, or the devious means which abounds in the foggy region lying between fair dealing and actual fraud. Let the young make a note of this, and see that their money comes fairly, that it may long abide with them."

RAYMUND LULLY—POWER TO MAKE GOLD.

William Jacob in his history of the precious metals, says of Raymund Lully, that he went to England in the reign of Edward III. It will be remembered that this Lully pretended, and was believed, to possess the power of transmuting the inferior metals into gold and silver. He seems to have been a strange compound of fanaticism and imposture. He was originally a Jew, who had been converted to Christianity and had become a Dominican friar. Cremer, abbot of Westminister, brought him to England, and introduced him to the king, for whom he agreed to exercise his science on condition of the monarch entering into a war with the Turks. The king was too much occupied with his wars in France to attack the Turks, and Lully refusing on that account to continue his operations in making more gold, was in consequence of it imprisoned and kept in durance a long time in the Tower. It seems to have been believed by Ashmole, upon the testimony of Norton and Hermes Bird, that this man actually made gold whilst a prisoner in the Tower; and besides giving credit to this from tradition, he mentions as a corroborative proof, that the money coined from this gold had on the reverse "a cross fleury with lioneux, and the inscription, *Jesus autem transiens per medium eorum ibat;* intimating, that as Jesus passed invisible and in a secret manner through the midst of the Pharisees, so *that* gold was made by an invisible and secret art amidst the ignorant." Some instances of faith in this delusive necromantic art may be traced in the statutes and other public documents almost to the first year of William and Mary, when the act of the 5th of Henry IV. was repealed which had been enacted to prevent the "craft of the multiplication of gold."

LIBERALITY IN BUSINESS.

There is no greater mistake, says a cotemporary, that a business man can make than to be mean in his business. Always taking the half cent, and never returning a cent for the dollars he has made and is making. Such a policy is very much like the farmer's, who sows three pecks of seed when he ought to have sown five, and as a recompense for the leanness of his soul only gets ten when he might have got fifteen bushels of grain.

Everybody has heard of the proverb of "penny wise and pound foolish." A liberal expenditure in the way of business is always sure to be a capital investment. There are people in the world who are short-sighted enough to believe that their interest can be best promoted by grasping and clinging to all they can get, and never letting a cent slip through their fingers.

As a general thing, it will be found—other things being equal—that he who is the most liberal is most successful in business. Of course we do not mean it to be inferred that a man should be prodigal in his expenditures; but that he should show to his customers, if he is a trader, or to those whom he may be doing any kind of business with, that, in all his transactions, as well as social relations, he acknowledges the everlasting fact that there can be no permanent prosperity or good feeling in a community where benefits are not reciprocal.

We know of instances where traders have enjoyed the profits of hundreds of dollars' worth of trade, and yet have exhibited not the slightest disposition to reciprocate even to the smallest amount. Now, what must neces-

sarily follow from such a couse? Why, simply the loss of large profits per annum, in the loss of trade, which, under a more liberal system, might have been retained.

The practice of some men seems to be, to make as little show in the way of business as possible. Such a one, if a trader, takes no pains with the appearance of his store. Everything around him is in a worn-out, delapidated, dirty condition. To have it otherwise it would cost a dollar for whitewash, and perhaps five for painting, and a few dollars besides for cleaning up and putting things to order. And so he plods on and loses hundreds of dollars' worth of custom for the want of attention to these matters, while his more sagacious neighbor, keeping up with the times, and having an eye to appearances, does a prosperous business.

Another will spend no money in anv way to make business for fear he shall not get it back again. Consequently he sends out no circulars, distributes no handbills, publishes no advertisements; but sits down croaking about the hard times—moaning over the future prospect of notes to pay, no money, and no trade; and comes out, just where he might expect to come—short, while his neighbor, following in a different track, doing all that is necessary to be done to make business, has business; isn't short, but has money to loan; and it would be just like him to get twelve per cent., perhaps more, for the use of it; and we should not blame him for so doing.

The fact is, times have changed. The manner of doing business is different now, from what it used to be. It would be just as foolish to insist upon doing business now, in the old-fashioned way, as it would be to insist upon travelling with an ox-team instead of by railroad; to get news by old-fashioned stages instead of having it brought by the lightning telegraph. The times demand men of enlarged, liberal, energetic souls—men who will keep up with the world as it goes; men of hearts, too, who not only desire to go ahead themselves, but take pleasure in seeing others succeed; and who have public spirit enough to do something for, and rejoice in the prosperity of the people.

AN AUSTRIAN ANECDOTE.

The *Gazette du Danube* publishes the following anecdote:—"A naval officer, who was some time ago making an excursion in the mountain near Ischl, lost his way, and entered a cottage to ask for information. The mistress of the house offered to send her son to show him the road. The offer was accepted, and when the lad had put the officer in the right path, the latter offered some money as a reward for his services. The boy refused to accept any, and remarked that the soldiers were always short of money. The officer inquired how he came to know that, and the lad replied, 'Why because I have a brother who is a soldier, and he never has any money. This very day my mother has sold our last goose and sent him what it fetched.' Touched by this artless tale, the officer returned to the cottage, gave the good woman three times the value of her goose, and promised to take care of her son if he behaved well. It need hardly be said that the officer kept his word, for he was the Archduke Ferdinand Maxamilian."

THE BOOK TRADE.

American Underwriters' Manual and Insurance Directory for 1862 *and* 1863. New York: GRIERSON & ECCLESINE.

This work presents, in a very convenient form, a large amount of information and statistics connected with insurance affairs. It professes to be the first compilation which contains an account of all the insurance companies in the whole Union, excepting the seceding States, and must prove useful to the mercantile as well as the insurance community. In addition to an alphabetically arranged list, or directory of the officers of insurance companies in New York, the New England States, New Jersey and Pennsylvania, this manual gives a very full account of all insurance companies and agents in the Western States, some of the Southern States, and also in California, a collection of recent insurance laws and several official reports, with general statistics of great interest in connection with the growth and strength of insurance throughout the country. Merchants doing a country trade, and men in the shipping and forwarding business, will find a work of this description invaluable for reference. The compiler is JOSEPH B. ECCLESINE, Esq., the talented insurance editor of the *Wall Street Underwriter*, and having made this branch of statictics his specialty, the work is reliable and accurate in its statistics and just in its expressed opinions.

The American Annual Cyclopœdia and Register of Important Events of the Year 1861. D. APPLETON & Co., 443 and 445 Broadway, New York.

The development of science, the geographical explorations, the ingenious and important inventions of the past year, together with biographical notices of the virtues and services of the distinguished men who closed their career in 1861, form a portion of this very valuable volume. But perhaps the most important part is the full and accurate history which it contains of the conflict in the United States during the same period. The publishers appear to have presented a truthful picture of these matters, giving, as they state in their preface, the movements of the leaders of secession, from their first acts to the close of the year, including the proceedings, step by step, in each of the Southern States until they had resolved themselves out of the Union, and their subsequent efforts; the organization of the Confederate States; the principles upon which that organization was founded; the civil and commercial regulations of the Confederacy; the movements of its Government to fill its treasury, and organize and equip vast armies; the counteracting movements of the United States; the organization of its armies, with the details of the weapons for the infantry and artillery, and for the batteries for the ships and gunboats; together with all the original documents, from the Messages of the respective Presidents; the instructions of Cabinet officers; the Messages and proclamations of Governors; the important acts of the United States and Confederate Congresses; the acts and resolutions of State Legislatures; the proclamations and orders of commanding officers; the contributions of men and money from each State, North and South; the details of every battle and skirmish involving a loss of life. So ample have been the resources from which its details have been prepared, comprising publications both North and South, that it is believed no important public measure of the Federal or Confederate Governments, or of any of the States, has been overlooked or valuable document omitted. The efforts of the Confederacy to secure the cooperation of foreign powers, and of the United States to prevent it, are summarily presented in the letters and instructions of the respective diplomatic agents. We heartily commend this volume to our readers.

THE

MERCHANTS' MAGAZINE

AND

COMMERCIAL REVIEW.

Established July, 1839.

EDITED BY

WILLIAM B. DANA.

VOLUME XLVII. NOVEMBER, 1862. NUMBER V.

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